

Reports of the
Berkeley
UNIVERSITY OF CALIFORNIA
ARCHAEOLOGICAL SURVEY

No. 69

**THE ABORIGINAL POPULATION OF
THE SANTA BARBARA CHANNEL**

Alan K. Brown

**University of California Archaeological Research Facility
Department of Anthropology
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CONTENTS

1.	PREFACE	1
2.	PURVIEW	3
2.1	THE CENTRAL AREA	3
2.2	THE PERIPHERY	5
3.	DATA ON INDIVIDUAL VILLAGES	14
3.0.1	IDENTIFICATIONS	14
3.0.2	NAMES	15
3.1	CATALOGUE OF VILLAGES	16
4.	COMPARISONS, INTERPOLATION AND EXTRAPOLATION	49
4.0	MEASURES OF POPULATION	49
4.0.1	EARLY ESTIMATES	49
4.0.2	BAPTISMS	50
4.0.3	POPULATION IN 1796	51
4.1	POPULATION COMPARISONS	52
4.2	OTHER COMPARISONS	57
4.2.1	HOUSES	57
4.2.2	CANOES	64
4.2.3	AREA	65
4.3	CONSIDERATIONS AFFECTING TOTAL POPULATION	74
4.3.1	ABANDONMENT OF TOWNS	74
4.3.2	WARFARE AND DESTRUCTION OF TOWNS	75
4.3.3	DECLINE IN POPULATION	76
4.3.4	ON THE TOTAL POPULATION	79
5.	SOURCES	82
5.1	PUBLISHED WORKS	82
5.2	UNPUBLISHED MATERIAL	88
5.2.1	HISTORICAL ACCOUNTS	88
5.2.2	MISSION BOOKS	89

ILLUSTRATIONS

Map 1.	Native Villages of the Channel	18
Figure 1.	The Dos Pueblos Sites	27
Figure 2.	Reconstruction of Goleta Slough	30
Figure 3.	Compiled Sketch of the Rincon	40
Figure 4.	Baptisms against 1796 Population	55
Figure 5.	1796 Population against Baptisms	59
Figure 6.	Houses against Estimated Populations	61
Figure 7.	House-counts against Baptisms	63
Figure 8.	Canoes against Baptisms	67
Figure 9.	Canoes against Baptisms	69
Figure 10.	Areas of Towns against Baptisms	71
Figure 11.	Areas of Towns Compared with Houses	73
Figure 12.	A Plan of the Bight of Purissima Concepcion.	90
Table 1.	Total Baptisms from Twenty-six Towns	95
Table 2.	Population of Towns in 1796	96
Table 3.	Converts Born before 1771	98

ACA 383



View of Santa Barbara, on the Coast of California, the Indian Village dist. 2 m.

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View of Santa Barbara, on the Coast of California, the Indian Village dist. 2 m.

[Reproduced from a volume entitled "Sketches of Survey on the N.W. Coast of America by Mr. John Sykes 1792," with the permission of the Hydrographer of the Royal Navy.]

1. PREFACE

1.0 This paper is essentially an essay at compiling and presenting information from old documents. Its purpose is to furnish, in the manner of a manual or source book, some recoverable numerical details on a vanished and imperfectly recorded aboriginal group that has managed to attract an increasing amount of study from ethnologists, archaeologists, and antiquarians. Much of the information was collected for the purpose of annotating historical records (see 5.2.1 below), and, partly for that reason and partly to avoid unqualified entry of a professional field, the use of archaeological studies has been somewhat superficial. On the other hand, it is hoped that the material given here will be a convenient reference for such studies.

The present form of this paper was wholly suggested by a portion of S. F. Cook and R. F. Heizer's, *The Quantitative Approach to the Relation Between Population and Settlement Size* (1965), in which, mostly for exemplary purposes, comparisons by the authors' own method are performed on data from the Santa Barbara Channel rancherias. Here the primary intention is not to test or rework Cook and Heizer's theoretically oriented study. The method of logarithmic comparisons that they recommend forms the basis of sections 4.1 and 4.2 below, but the application is data-centered to the point of being quite free of even elementary statistical checks. It is felt, simply, that their method is more powerful, because more general, than straight numerical or percentage comparisons would be; in other words, that it would be surprising if the data did not reveal plausible relationships when arranged in this manner (4.1, 4.2.1 below). At the moment, the results must be the best justification of this presentation. Interestingly close agreements are found in 4 below between numbers of persons, houses, and canoes, with less obvious but apparently interpretable relations when the comparison is extended to site areas. I would also like to stress the fact that the effect of European contact appears to have been almost equally as disastrous for the heathen in his native rancheria as for the convert at the Spanish mission (4.3.3.2); it would seem to follow that introduced diseases must have been the principal cause for the disaster to the native population.¹ At the root of this and several other studies has lain the question of the population's original absolute size; a short discussion is offered in 4.3 below.

¹ See Borah (1964) for a pertinent discussion of the general effects of European contacts.

Acknowledgments of help received in preparing this paper will be found in several sections below (3.0.1, 3.1.24, 5.2.2). I am indebted to Mr. Frank Gutierrez, Dr. C. E. Rozaire, the staffs of the Bancroft Library, the Santa Barbara Historical Society, and others; and most deeply to Dr. Robert F. Heizer for discussion and encouragement, and to the Reverend Maynard Geiger, O.F.M., for many-sided assistance in locating documents and other help.

2. PURVIEW

2.0 It is well known that the native fishermen on the shores of the Santa Barbara Channel followed a way of life that was, at least in its technology, remarkably well developed for aboriginal California (Grant 1965; Orr 1943b). Spanish travelers at the end of the eighteenth century were fond of speculating that the differences might have been introduced by some outside agency, such as the crew of a wrecked Chinese junk (e.g. Sales 1960:68-69; Longinos in Simpson 1961:58),¹ and in more modern times not dissimilar ideas of Oceanian, trans-Pacific, or Northwest Coast influence have sometimes suggested themselves (e.g. Kroeber 1939:44). So far, however, ethnological and archaeological investigations seem to have found nothing totally incompatible with the culture's presumed integrity and antiquity within its surroundings. The culture, however, was elaborate and idiosyncratic, and one would at least like to know the size of the group that was able to maintain it. The types of evidence, and estimates made from them, have been rather diverse; therefore, as groundwork for the detailed lists and quantitative discussions to be given in sections 3 and 4 below, certain significant traits, mostly familiar ones, of the Central Channel culture will be mentioned here (2.1). An attempt will then be made (2.2) to define the heartland in terms of its periphery or shadings-off. Reference is made throughout this section to Map 1.

2.1 The Central Area. No native designation has been recorded for the whole Channel cultural complex or area. Its most remarkable features were not entirely coextensive with the language since called Chumash, though this term is undoubtedly justified in a general way as a name for the culture, and the connection would probably be even clearer if the immediate prehistory of both were better known (see 2.2.4). To avoid prejudicing the following descriptions, the term "Canaleño" will be used; archaeologists apply it to the latest prehistoric layers in the Channel's cultural hearthplace.²

The early European explorers of the Santa Barbara Channel have left a few descriptions, of which the following is merely the most concise:

In sixteen leagues [southeast from Point Conception]
there are seven Towns of tame Heathens. Their houses
are built of Reeds, round and very well made; they
have certain canoes like a Felucca with two prows and

¹ See page 9 for end notes.

6 or 7 [Spanish] yards long [16½ to 19½ feet], with which canoes they catch a plenty of fish. They are the hardest working Indians I ever saw, and the most civilized,³ on any coasts.

Other early accounts agree with this assessment, most specifically in the importance attached to the big, peculiarly-constructed canoes.⁴ The principal settlements were all at landing places on the island-sheltered coast. It was these oversized villages of 500 or so persons that the Spanish explorers characterized as "regular," "proper," "ordered," or "well-laid-out towns" (pueblos formales, regulares, ordenados, coordinados), plainly referring to the arrangement of the houses in rows, along what looked like a street or streets.⁵

The dwellings, though less remarkable in design than the Channel canoe, are said to have had a diameter of as much as 20 Spanish yards (54 or 55 feet), and to have held three or four families regularly (Costansó 1910:132); or up to five or six families, according to another early description. The best general description of these communal dwellings is heretofore unpublished:

Some of these Houses, round like half Oranges, are extremely large; we entered for Curiosity sake within some of them, and were struck with wonder at their size, for no doubt at all they must be able to lodge sixty people and more without hindrance.... Inside these Houses were Women scattered in various Lodgings,⁶ some grinding for pinole, others toasting the Seeds, and others making Bowls and Trays made so finely of rushes, with such patterns and pictures, as to strike one with wonder.

In the face of these descriptions, it seems strange that the explorers' own estimates of village populations allow only an average of about six persons; that is to say, perhaps a single family to each house they counted (4.2.1 below). A closer look at the descriptions suggests that the biggest houses were not the commonest type: at the Gaviota town (3.1.6 below) "52 large houses" becomes in another version "about 52 Houses, some of them quite large"; at the Carpinteria (3.1.20) mention of "38 large houses" is qualified by the remark that "some are so large inside, that they hold many families." Only at the larger of the Dos Pueblos (3.1.11) is it specifically said that the houses were "all very large."⁷ Later information, mostly archaeological (Rogers 1929:370; Olson 1930:20; Woodward 1933; also M. R. Harrington 1954, photograph), suggests that a diameter approaching 20 feet was more typical—which would equal a floor area corresponding to one family,

supposing that the largest house-diameter recorded held about seven families. The high domed or conical roof would still give the impression of considerable size. According to J. P. Harrington's late information (1942, item 226), the families under one roof were related, and from one early account it has been deduced that the proprietor of a canoe was also master of a big house (Font as cited by Heizer 1938:212-213). In the Californian context, one thinks naturally of the heads of important lineages: there are said (Pico in Heizer 1955:151) to have been fifteen to thirty families to a village, and the larger villages seem to have commonly run to ten or a dozen canoes. The social hierarchy was undoubtedly the complex result of cross-cutting institutions about which little can be guessed, even from comparative information; but a connection between heads of houses and the institution of multiple village chiefs (of whom up to four appear in the larger settlements) is vividly suggested by fragmentary descriptions of the two classes' mode of dress.⁸ J. P. Harrington's material (1942, items 1238-1311) seems to offer the following bases of hereditary chieftainship: (a) village lineages, (b) village moieties (item 1283, apparently very uncertain), (c) what are described as non-localized patrilineal clans. A few scraps of historical information can be made to fit such institutions easily enough.⁹ An important material fact for which some such social explanation is strongly indicated is the bipartite arrangement of the towns along the northwestern half of the Channel. These were usually ranged on two sides of a stream or inlet, though in one or two cases (3.1.4, 3.1.7) the parts were not separated by natural features (cf. also Rogers 1929:368). For all but two (3.1.5, 3.1.9) of ten places, the twin-village disposition is suggested by the remains of the site (3.1.1, 3.1.2, probably 3.1.3, 3.1.8, 3.1.11-12) or described in early records (3.1.2, 3.1.3, 3.1.4, 3.1.6, 3.1.7, 3.1.8, 3.1.11-12). In the case of Quemada (3.1.7), mission records distinguish between converts from the southeastern and northwestern parts or sides of the town. At the well known Dos Pueblos, the smaller ward or village had a specific name and its own chief or chiefs (3.1.12), and a vague tradition of a social dichotomy is perhaps significant; yet the two settlements were certainly for most purposes a unit.¹⁰ The most obvious social analogue to such an organization into twin barrios would of course be the pervasive moiety system of native California.¹¹ It is interesting that the southeastern half of the heavily inhabited Channel shore apparently shows no trace of such a habit of settlement, either in historical descriptions or in its existing archaeological sites. The difference, which on the physical evidence must obviously have been an ancient one, may also have been reflected in the intensity of site usage in historical times (see 4.2.3).¹²

2.2 The Periphery.

2.2.1 On a wider horizon, it is well known that a branch of the same Chumash language, but a very deviant branch, was spoken up the coast beyond San Luis Obispo, well off Map 1, and a long way from the central Canaleño culture. The latter's northwestern limit is placed by historical sources nearly at the great cape of Point Conception. Here, according to the Juan

Crespi journals, "the canoes come to an end, and from here onward as far as the San Francisco Inlet there are only occasional balsa-floats made of tule in some places." The frameless Channel canoe obviously could not live in the seas and surf outside Point Conception. (The same conclusion was reached by Heizer 1941, from less explicit sources.) Immediately north of the point were two small and relatively miserable settlements (3.1.1, 3.1.2) which the Spanish explorers (and Felipe de Goycochea as late as 1796) regarded as "regular" Channel towns, apparently because of their ground-plan, though the last and smallest consisted of "huts" or "little houses" (casitas). Northward along the shore only villages (rancherías) are mentioned; at the next one encountered the natives were "camped in the open," and a few months later they had migrated elsewhere.¹³ Still farther north, at La Larga (Guadalupe Lake), was a village of about 12 huts and 50 people. Beyond that point the explorers found no dwellings worthy of remark at all, the people living merely "in the open," or, at Morro Bay, having "only an underground house."

2.2.2 Map 1, which is from somewhat later records, indicates moderate sized villages farther inland, at Lompoc and elsewhere, with a concentration of larger populations in the valley about Santa Ines. This last group is distinguished by one Spanish missionary as "mountaineers" who also had secured a partial foothold on the Channel coast, apparently in the 1770's (3.1.7, 3.1.9, 4.1.1). The same man a little later estimates the population in the interior around Santa Ines at the rate of four persons per house, a ratio obviously smaller than that for the large canoe towns. This is about the same as the estimates for the La Larga village just mentioned, and was arrived at (the missionary insists) by long years of practical experience (Engelhardt 1912:600). In the mission registers family relationships are commonly noted between the Santa Ines group of villages and the small scattered settlements of the barren interior, at least as far as the Cuyama Valley.

2.2.3 Away from the immediate shore, no other large centers of population are indicated until as far southeast as the neighborhood of the Ojai Valley in back of Ventura, where there were two very large villages which, together with those by Santa Ines, were perhaps dependent upon a trade in dried fish from the shore. One of the villages shows very close family connections with the canoe town at Ventura, while the other seems to have been connected rather with the northern interior and the villages toward the Santa Clara River. This river valley, which departs obliquely from the coast, was traversed by the first Spanish expedition and consequently gives us the best described sample case of how Canaleño culture changed or diminished toward the interior. The explorers are unanimous in distinguishing the shore town at San Buenaventura from the inland settlements by its size, the size of its houses, and its more regular layout; here also an elaborate

hairdressing, typical of the Channel, was first seen. In 1769 the nearest village up the valley from Ventura was Saticoy, where there were "about twenty large round grass houses," or, according to other accounts, a small village of hemispherical grass huts and about 40 natives. This site was abandoned by the 1780's, though it still bore, and bears, its Indian name (cf. Señán 1804, in Simpson 1962:14-15). Farther up another group of natives is described as merely camped on the riverbank by present Santa Paula, and it is difficult to identify this settlement with the Mupu village later attested for this vicinity by mission records and tradition.

The last Chumash-speaking settlement west of the unrelated group known as the Allikliks (Kroeber 1915; 1925:613-614) was the village the Spaniards named Santa Clara, at present Fillmore. In the mission records it has two native names, one of them no doubt Alliklik, and the other—which slowly replaces the first—indubitably Chumash. In 1769 an explorer described the place as a large village or town, of at least 500 souls (over 300 women and children being counted in the village), with all the appurtenances—fine wooden bowls, shell-bead money, deerskin skirts, fine basketry—that the Allikliks shared with or bought from the Canaleños. The architecture at Santa Clara is most inconsistently described: first, as large round grass thatched dwellings and vaulted underground ceremonial buildings (both of the Canaleño type); second, as an enclosure (corral) with one little entrance of a type the Spaniards had encountered before among the upstream Allikliks. Another explorer's account reduces the village's population to "over 200" and denies them any more shelter than the enclosure or booth (enramada). This is clearly identical with the community house or compound of Shoshonean speaking groups in the mountains farther to the northeast, as described by the explorer Garcés in 1776 (most clearly in Galvin 1965:44-45; see also Kroeber 1925:612-613). Santa Clara, though so much larger than its neighbors, was apparently not much more permanent, for in the 1780's it fades out of the Mission San Buenaventura records to be replaced by Sespe, which was very close by. The personal names recorded from both places are mostly of Chumash form; Chumash names are also common among the Alliklik settlements just up the valley but to a lesser degree.

2.2.4 Southeast of Ventura the evidence of mission conversions and of archaeology (Woodward 1930, 1933) shows one more large coastal town, Mugu 3.1.24).¹⁴ Beyond Point Mugu the coast becomes bold and sometimes rather barren, as it swings out from behind the protection of the Santa Barbara archipelago. The surf often runs high.¹⁵ It is not surprising that the Spanish missions had proportionately few converts from the villages of this shore. Nothing like a direct description of these settlements seems to have been preserved. Family relationships with more inland villages were common and, in a very special sense, extensive; note the remarkable chain of half-brother and -sister relationships listed in 3.1.29 below. Customary bigamy

for the chiefs cannot explain such a circumstance. Of the inland settlements in this sector that were visited by Spanish explorers, two small villages near the Conejo and Thousand Oaks were built not of grass thatch but with "close-woven rush roofs," a material said to be typical of the Shoshonean Gabrielinos to the southeast (Blackburn 1963b:23).¹⁶

Though Malibu (3.1.29) is the last Chumash place-name on the shore toward Los Angeles, the few personal names unequivocally reported at Shoshonean-speaking Mission San Fernando from Topanga, just beyond Malibu, are Chumash, and the same is more clearly true of the much larger inland village called Escorpión by the Spaniards, at the northwest end of the San Fernando Valley; the language boundary is drawn accordingly upon Map 1.¹⁷ In fact, insofar as the name Fernandino is justified for a separate group of Shoshonean speakers, it may refer to those who had been influenced by, or had inherited, the southeastermost Canaleño culture. In this respect, the historical records reinforce a conclusion already suggested by Kroeber from a statistical examination of J. P Harrington's data (1942:4, in introduction). In mission records, occasional Chumash personal names occur as far as and beyond Encino, where the explorers of 1769 had found a large village or villages showing, as the Spanish writers themselves realized, typical Channel traits: multiple chiefs, regularly arranged grass-roofed dwellings, underground dance houses, beads, and beautifully carved wooden flutes.¹⁸

Across the mountains, at Westwood nearer the shore, the Spaniards had previously visited the small place later called San Vicente, with "huts with grass roofs, the first we have seen of this kind," and strings of shell beads in evidence. Thence to the southeast, across the plains of Los Angeles County, where the only traits reminiscent of the Channel had been, once, a hafted knife worn in the hair of a chief's son from toward San Pedro, and the women's deerskin skirts, which are expressly said to have begun at Los Alisos Creek near El Toro, the southern limit of Gabrielino territory in later tradition. The evidence is not sufficient to suggest whether or not a version of Canaleño culture was still seated on the shore near San Pedro in historical times, thus to fill the gap between the Santa Barbara Channel and the canoe-based culture of Catalina Island and San Clemente out beyond.¹⁹

2.2.5 There remain to be mentioned the Channel Island proper, in aboriginal times lying parallel to the most heavily populated portion of the California coast and in constant communication with it. On Map 1, the largest settlements seem to be well placed for trade with the mainland and down the chain of the archipelago. The island dialects, however, are well known to have been quite divergent.²⁰ For reasons mentioned in 4.0.2, it is difficult to be sure how accurate the map may be in its suggestion

of the size of the island populations compared to that of the mainland. In 1805 the missionary Estevan Tapis spoke of the islanders as living "in more than usual poverty," "the men wholly naked, the women little less so, hungry, with no recourse but fishing and some seeds got in trade from the Natives of the mainland in return for the beads they themselves make from shells." This was long after European pestilence had been introduced, and at a time when Anglo-American ships were already beginning to visit the islands to trade with the natives for otter pelts. The description of the islanders' relative poverty nonetheless interestingly echoes a sixteenth century account (Bolton 1908:34; cf. also "Pahilachet," Henshaw in Heizer 1955:154, n. 35); and other accounts also stress the trade in shell money (Costansó 1910:139; "Omsett," Yates in Bowers 1877; cf. Kroeber 1925:564-566).

Notes

1. White (1963:93-94) builds a theory of European or Asiatic influence on Californian groups, out of what seems to be a distorted version of this notion told by the American sea captain William Shaler in 1804. The whole idea, in fact, might easily have come from a mistaken or overimaginative reading of Pedro Fages' remark (written in 1775 and well known even though unpublished) that the Channel Indians were "the Chinese of California."

2. The term appears occasionally in Spanish documents, referring to a native of the Channel (Indian or, by half-humorous extension, de razón), and has been revived in this ethnological sense by Hutchinson (1965:4 etc.). Rogers (1929) introduced the archaeological use, as "Canaliño," which is not Spanish but probably represents the reflex of the term in American pronunciation; Orr has corrected this to "Canalino," a less natural form, and distinguishes its application from "Chumash."

3. Siviliciados(!). This is translated from an unpublished account by Miguel del Pino, an experienced seaman with the expeditions in Upper Californian waters from 1769 to 1771. He observed only about half of the populated Channel. Other descriptions agree that the houses were made of "grass," but several archaeologists have identified this as a seaweed.

4. See especially Heizer (1938). Further, 2.2.4 note, 3.0, 3.0.2, and 4.2.2 below. Landberg (1965) suggests that some vague differences among explorers' estimates of numbers of canoes may indicate the boats were built annually for a fishing season. But a relatively early source (Daniel Hill in Woodward 1934) states that construction took five or six months.

5. J. P. Harrington (1942, item 233 and note) reports a denial by late informants of more than two rows or one "street." There is a passing eighteenth century reference (quoted 3.1.21 below) that is unfortunately ambiguous, but might suggest more than a single street at the Rincon Town.

6. Ranchos. A passage on sleeping arrangements has been omitted. This quotation, and much other information used here, is from the original Juan Crespi journals (5.2.1). Other accounts and later tradition add a few details, such as that the fire was in the center of the house, and partitions between family spaces were tule mats (Rogers 1929:372; J. P. Harrington 1942, items 221 and note, 224-225).

7. Estimates of this town's population are high in relation to the reported number of houses (fig. 6 below). Further, it is the largest settlement in the northwestern area of apparently more intense site-occupation (4.2.3) where (unlike the southeastern area) it appears from Figures 10 and 11 that the number of houses increase much less rapidly with relation to area on a nonlogarithmic scale than the number of persons does.

8. Orr (1943b:3) has brought together the two most relevant early accounts. According to Pedro Font (Bolton 1931:252, 259), the boat owners wore as a mark of distinction a waist-length bearskin cape; while Pedro Fages (Priestley 1937:32) says that the chief alone was allowed to wear an ankle-length animal skin cloak, the other men wearing shorter capes. (It should be stressed, against Orr's conclusion, that capitán here means "chief"—not sea captain.) The explorer Costansó (1910) mentions both styles, without distinguishing the wearers.

9. Would the "big chief" of several villages (J. P. Harrington 1942, items 1240, 1284a and notes; also historical records) have been head of a "non-localized clan" (and the clan perhaps made up of patrilocal village lineages from more than one village and perhaps organized by moieties above the village level)? Compare 3.1.17 note, where "the chief" of an inland village is son of "the Old Chief" of a coastal town, which is also the seat of a regional chief. It is not clear what sort of personage the "Little Chief" was at a third town mentioned, but a ranking by authority or prestige also seems indicated among the multiple chiefs in the list reproduced in 3.0.2 below.

10. See the material in 3.1.11 and 4.1.2 below. In no case is the commonest native name for Dos Pueblos specifically attached to the larger portion (as is usually assumed); the evidence strongly suggests that "Miquigüi" was Dos Pueblos, or was usually used as the equivalent. Yarrow (1879:41) was told that an old Indian woman had said that two "tribes" with different dialects lived here and had to get each other's permission to cross the creek (possibly a distorted reference to some sort of ceremonial reciprocity?). This story got into the county histories in a vulgarly exaggerated form.

11. J. P. Harrington's (1942, note to items 1245, 1248) significant recording of one Chumash reference to a "pet" or "totem" is doubtfully or somewhat contradictorily applied by him to two of his three suggested social organizations, and apparently with much more confidence to the third, or lineage (patrilocal family), for which he indicates much more extensive confirmation of "totems" (ibid, item 1256). For his report of moieties see also Strong (1927:9) and remarks by Heizer (1955:149); and for speculations on the nature of Chumash society see Strong (1927:33 etc.; 1929:155, 343) and the material cited and discussed by Heizer (1955:149). Similarities to the aboriginal Yokuts society of the San Joaquin Valley can be noted in various sources, particularly in regard to multiple chiefs, large multifamily dwellings, lineages with "pets," and perhaps linear village layout. If two kinds of Canaleño social organization are reflected in the big houses and the divided village plan, is it probable that the disposition of houses in rows was the expression of a third kind of institution?

12. Also, it can hardly escape notice that this apparent geographical division has a certain resemblance to the "provinces" of Xucu (Xuco) and Xexu (Sejo) in the reports of the Rodríguez Cabrillo expedition of 1542-43 (Wagner 1929:88, 427, 457). The meaning of this part of the old accounts, however, is still highly problematical: at least one of the provinces seems to have been conceived as a political entity ruled by an old woman, but the names surely belonged also to single towns (3.1.3 and 3.1.21).

13. The village was later called Graciosa Vieja, but apparently it was inhabited at the same time as Graciosa Nueva.

14. The lagoon, in which most fishing may have been done, was formerly very large. A statement by Pico (in Heizer 1955:200) that no native of this place who married outside was allowed to return may not be strictly true (cf. Pico's similar claim that no women could inhabit a certain ceremonial village on the islands—which seems directly discredited by mission records). But certainly the Mugu converts show extraordinarily few relationships with the nearest villages, and are found living at unusual distances from their birthplace.

15. Cf. Beeler's (1957) etymology for Malibu, mentioned in 3.1.29.

16. Or perhaps of the Serrano Shoshoneans to the northeast.

17. Johnston (1962:94) reports the tradition that at Topanga Canyon there used to be a large native cemetery of the Channel type, with whale-rib grave markers.

18. It is perfectly possible, and Map 1 might almost seem to suggest, that it was after rather than before 1769 that a Shoshonean population displaced a Chumash-speaking one in this area, and pushed the linguistic frontier northwest to its position in about the year 1800.

19. In 1769, Spanish scouts sent out to the beach at Santa Monica saw "countless heathens" and many smokes up the coast, but there is no mention of canoes. Direct sea travel between Catalina and the Channel shores was surely less reliable than along the shore. The sewn plank canoe is attested historically for Santa Catalina, and apparently at least archaeologically for San Clemente (Woodward 1959:xxii; though the account of the missionary Juan Vizcaíno in 1769 may not refer to this island, a Spanish ship at sea was certainly visited by canoes of some sort from San Clemente in 1774). The numerous but vague references to dugout canoes on the Southern California coast (e.g. Heizer and Massey 1953, with map p. 294) might well refer to a more primitive imitation, or early diffusion of the Santa Barbara Channel canoe-building complex, preserved in the most remote islands. It is hard to see what use a dugout could have served in San Diego County, except for communication with the islands.

20. Nineteenth century ethnologists arbitrarily applied to the entire language stock the term "Chumash" said to have been used for the Channel Islanders by the mainland Indians (specifically at Santa Barbara?—Pinart in Heizer 1952:72, 2; Henshaw and Ord in Heizer 1955, vocabulary and p. 87 note). Native names connected with the islands pose a nice series of problems, apparently because of the European categories imposed by the recorders. Apparently connected with "Chumash" is a name for Santa Cruz Island or its inhabitants (Pico and Henshaw in Heizer 1955:197 and vocabulary, Santa Barbara, San Buenaventura) which is mentioned once in mission books (MBV B793 Isla de Michumas, margin Mìchumas), as is another term otherwise unrecorded (MBV B75, "the Island opposite here [San Buenaventura], called by the natives Minagua"). The least problematical case is San Miguel Island: Mission La Purisima records have "the village of Toan" ("Thoan"), "on the small island," except for "the village and Island of Toán" (MLP B2573) and "the chief of the Island of Toan" (B2613). The reported mainland name for Santa Rosa Indians or island (Pico-Henshaw and San Buenaventura in Heizer 1955:197 and vocabulary; Pinart in Heizer 1952:2 and 50 Santa Cruz Id.) appears several times in late Mission San Buenaventura entries as Isla de Guimá (MBV B II 480...or San José); but in one early entry (B419 "Chuchaué on the last Island, called Guímà") (Dumetz) it is used for Santa Cruz instead—to which island the Santa Rosa Islanders themselves are said to have applied it (Henshaw), as the Santa Cruzans applied it to them (Pinart). The well recorded name "Island of Limú" is also ambiguous. This is used for present Santa Cruz regularly in late San Buenaventura entries (e.g. MBV II 478 "Island of Limù, or Santa Cruz") and once in Santa Ines mission books

(MSI B696); but at least three Santa Rosa Island villages are placed on "Limú" by the same records (MSI B706, 801-2 etc.). The Santa Rosans' own name for their own people or island (Henshaw vocabulary twice; also Ord quoted by Heizer 1955:87 note, "Mascui" twice, from "Pahilachet," Henshaw's informant as well) appears as a village name in mission records ("Geluascuy, Jeleascuy, Jeleuascuy," etc.), and once as "Elehuachcuyu en la Isla de Limú" (MSI B695). According to Pinart's vocabulary, the Santa Cruzans used the name Limu for their own island. Should it be concluded that the Santa Rosans did the same, just as each group apparently applied "Wimaxl" to the other's island? At Santa Barbara (MSB B562, 1975, D146), Santa Cruz is referred to as the Island of Enemes (Enémess), while at Mission La Purisima what must be this same name appears (MLP B432, etc.) as "village of Lemez, on the Island" (i.e. the largest island) and "village of Lemes, or the Island." A way out of the maze may be suggested by the same mission's Indice of village names, where four Santa Rosa Island villages and one on Santa Cruz are listed under the heading "Villages of Lemes, or of the Islands." It would be easy to suppose a grammatical relation or dialectal connection between "Limu" and "Lemes," and perhaps further with "Helewashcuy" and finally with "Chumash." (See 3.0.2 note below.)

3. DATA ON INDIVIDUAL VILLAGES

3.0 The settlements chosen for special attention here are the twenty-nine shoreline sites occupied toward the end of the eighteenth century, including both the largest villages of the Channel and all, or nearly all, of those on the mainland shore that can have made extensive use of canoes. Much of the information listed below is of the quantitative sort that will be used for comparisons in the following section 4, particularly house-counts and population estimates from the journals of Spanish explorers. Heizer (1938:213) has already noted that some of these records seem to attach equal significance to the number of canoes owned by a village, and the newly-found original versions of the Juan Crespi journals are most systematic in giving such figures as a conscious index of a town's importance (an attitude apparently shared by the natives). Canoe-counts are therefore included here and analyzed later. The entering of village-site areas will also be justified by section 4; in most cases the square footages have been estimated by tracing surveyed plots from the sources (the archaeological investigations cited) onto millimeter-lined paper. The use of the material quoted from Spanish mission records is discussed in 3.0.2 and 5.2.2 below.

3.0.1 Identifications. The use of the quantitative information is critically dependent upon the user's being able to identify a given village unit in the very different types of sources. Extensive identifications have been attempted by Bolton 1908, 1926, 1931; Kroeber 1925; J. P. Harrington 1928; Rogers 1929; Wagner 1929; Cook and Heizer 1965; and Geiger 1960, 1965. In very few cases have they been accompanied by any supporting commentary, and they tend to differ rather widely in details and in the type of information used. For that reason the identifications employed below, which are intended to be as full and as nearly definitive as can be on the information now available to me, are discussed at sufficient length to mention any potentially serious difficulties—but it seems useless to engage in refutations. The descriptions of village sites in the historical records are paraphrased or referred to when the evidence might raise or resolve a doubt, but are otherwise taken for granted. I am most grateful to the Reverend Maynard Geiger, O.F.M., of Mission Santa Barbara, and to Mr. Frank Gutierrez, recently of Mission La Purísima, for generously providing me with copies of the results of their research in their own mission registers, information parallel to much of what is given below and in Map 1, and most useful in checking my own results. The identity of present Ytias Creek with a name in the mission records was discovered by Mr. Gutierrez, and I believe the possible identification of "Stucu" with Stuke Canyon may have been suggested to me in conversation by Father Geiger. The other identifications are my own responsibility.

3.0.2 Names. Deciding the type of designations to be attached to village entities is a problem, since it implies the acceptance of one sort of data over another. Previous practice has been inconsistent, for very good reasons. In the present case, where there is any doubt about the identification implied by a name a question mark is prefixed to it. Where possible the site or village names chosen are those that were employed by Spaniards (or Americans) after the time of the early explorations. Such names are given in CAPITALS, and often in their most recent form (e.g. the popular etymology CALABAZAL CREEK, map 1). In one or two cases it has been necessary to use, instead, ephemeral names bestowed and used only by explorers. Fairly often the only recourse has been to choose some version of a native Chumash name, usually the commonest spelling in the mission books, though on Map 1 a few more forms have been given; for example, both the spelling "Ajwaps" (also "Ajuabs," etc.) used at Mission La Purísima, and "Tgmaps" (also "Camapse," etc.) from the San Luis Obispo records. Following a convention of Rogers (1929) such names are enclosed in quotation marks. The trouble is that neither Spanish nor English spelling conventions, particularly of syllable structure, have been at all adequate to recording Chumash terms, which can hardly be recognized or represented in a reliable way until the language's phonology has been systematically dealt with and the results published.¹ Much can be hoped for from the continuing investigations of M. S. Beeler, and perhaps also from the late J. P. Harrington's materials.

In the meantime some help can be got from comparison between the published vocabularies, as well as from the connected text in rather cryptically modified Spanish orthography by Juan Esteban Pico (Heizer 1955:190-193). A type of information that under present circumstances also has its value is the repeated recordings of native place and personal names by the early Spanish missionaries, many of whom were obviously concerned to represent just what struck the ear, even at the expense of consistency.² The spellings of village names given below do not entirely exhaust the variants found in mission records, but are intended to serve as a reliable sample (see 5.2.2). Here the names of recording missionaries are sometimes given in parentheses since, especially in earlier years, they had their individual habits and occasionally were even willing to modify their graphic system for phonetic or phonemic purposes (examples under 3.1.2, 3.1.15, 3.1.23, 3.1.26). In the period after 1810, Father Mariano Payeras of Mission La Purisima possessed what seems to have been a well developed spelling system. The most extended example I have seen is in an account book among the records of his mission. It is transcribed here for its historical as well as philological interest.

¹ See p. 46 for end notes.

Ysleños, Capitanes dela Rancheria de Etxiu—xiu

- 1.º Gele
- 2.º Aiú: iúnatset
- 3.º Iaquinunaitset
- 4.º Xètèý

Itx`e´men Capitan Sului minatset

- 2.º Cuus máit

Con Gele se izo a costal de trigo, y sels entregaron 17. pesos de avalorio por 2 cayucos que va a comprar lo restante el lo adelanta. 6. feb.º del 14.³

In this and the following sections references to the records of various missions are abbreviated as follows: Mission San Luis Obispo, MSL; Mission La Purisima Concepcion, MLP; Mission Santa Ines, MSI; Mission Santa Barbara, MSB; Mission San Buenaventura, MBV; Mission San Fernando, MSF. Preceding the number of an entry or a date in parentheses, B indicates a mission baptismal register (libro de bautismos); D, a death register (difuntos); C, confirmations (confirmaciones); M, register of marriages (casamientos). The MLP Indice is an index of villages compiled rather late; the MSI census of 1820 is Book 11 among the Santa Ines records.

3.1 Catalogue of villages.

3.1.1 PEDERNALES. "The last regular Town of the Channel" is described in the Crespi journals as "a small-sized village of well-behaved Heathens..., settled near a small Creek of good delicious Water." This, together with the distances given, seems sufficient to indicate Canada Aqua Viva (Wild Horse Canyon), just outside the Point Arguello Naval Reservation, where the running stream, back from the sea cliff, is surrounded by very large shell and midden deposits—sites SBa-210 and 552, of about 929,500 and 559,100 square feet, according to Archaeological Research Facility index maps, or about 1,360,900 square feet in all, according to Weir (1950, map 2). This site was apparently examined by Schumacher⁴ (1877:55), who "found quite a shell-deposit, and some signs of houses near a spring." The journal of Miguel Costansó, however, mentions a narrow point covered with flintstones "a musket-shot away" from the town, which the explorers of 1769 therefore named Pedernales; but the distances to Rocky Point or even to a very small promontory at the present boathouse seem too great to fit the description. A smaller shell mound of about 210,800 square feet is nearer Rocky Point, but still 1200 yards away.

Population: Crespi: "some sixty or seventy souls"; "they must be about

some sixty or more"; (later) "there must be about a hundred souls." Costansó: "sixty souls." Portolá: inhabited by sixty heathens." Houses: Crespi: "some ten Huts"; Costansó: "ten huts." Canoes: none (see 2.2.2). Goycochea's list, 1796, calls the village Pedernales or Noctó, 1½ leagues beyond Espada (3.1.2), with 12 souls. Mission records: MLP Indice Nocto ó Pedernales; MLP B71, 324, C(1790) Nocto; B205, 276, 595 Noctó; C(1790) Notoo, B(--) Notóo; B92 Noctooc; B289 Nogtò; B1039, 1089 etc. etc. Noctù. B2475 (1810) etc. Rancheria de los Pedernales. See also 2.2.2, 4.2.3.

3.1.2 ESPADA (La Concepción). At present Jalama Beach: "twenty houses ranged upon one and the other side of a good-sized Creek...at about a hundred yards from the Sea" (Crespi). North and south of the Jalama Creek mouth are sites SBa-553 and 205, the smaller southern site, where house pits have been excavated, covering about 850,710 square feet; both sites together about 2,022,710 square feet (Archaeological Research Facility maps)

Population: Crespi: "We counted a hundred and forty souls; and at the same time there were others walking about in the Village"; "this Village must have some hundred and fifty souls." Costansó: "two hundred and fifty souls a little more or less." Portolá: two hundred heathens. Houses: Crespi: "Some twenty houses"; Costansó: "twenty hearths"; Portolá: thirty houses. Canoes: none (2.2.1). In the copy of Goycochea's list, 1796, the place is Espada or Siguiguimacita (the latter entered doubtfully in pencil in the "Chiefs" column), 1½ leagues from El Cojo, with twelve souls. Mission records: MLP Indice, Silimastus ó la Espada. MLP B12, 48 Silimastux; B16 SilⁱEmaxtux, B20-21 SilⁱAmaxtux, B80 SilⁱAmaxtux, B24 Maxtuchs altered in another hand to Silimaxtux; C(1790) Silimaxtux; C330 Silimaxtus; M629 Silimastús; B1128, 1134 (Uría) Silimaistus; M697 (1812) etc. Ranchería de la Espada. MSL B1688 Sili-mastus; Clemence from MSL B Chilimacstusú, Chilimaxtusu.

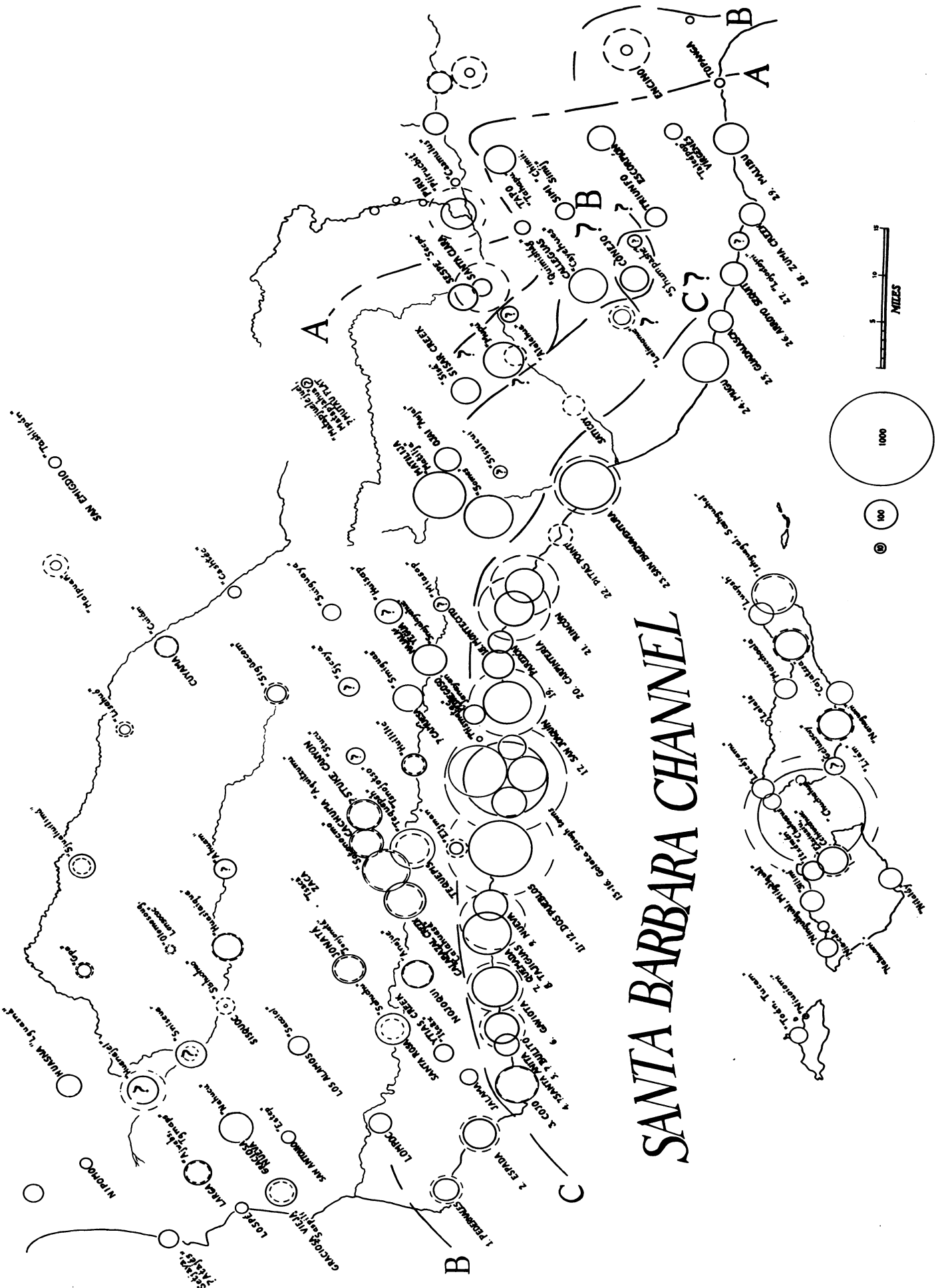
3.1.3 COJO (Santa Teresa). This is the Old Cojo (Cañada del Cojo of the maps), not the present Cojo Ranch headquarters; described by Crespi as "two villages separated by the stream itself." Site SBa-546 is on the southeast bank, but other sources would indicate that the longest lived part of the settlement lay just northwest of the creek, precisely where the railroad enters the rising ground. Thus José de Cañizares, master of a ship that anchored under Point Concepcion in early August 1772, found "the first heathen village to be seen" to bear east-northeast from what is now called Government Point; a watering place beside the village was a cannon-shot distant from the shore. Pantoja y Arriaga's map, made at the end of July 1782, places the village somewhat back from the shore and northwest of the creek; and a coastal view by John Sykes of the Vancouver

Map 1. Native villages of the Santa Barbara Channel

Solid circles represent numbers of baptisms at six Spanish missions; broken circles, populations as estimated or counted at various dates.* "?" within the symbol indicates a doubtful location. For conventions of naming, see 3.0.2 below. A—A, approximate limit of the Chumash language in 1800. B—B, limit of "regular towns" with large grass-thatched houses in 1769-70. C—C, limit of towns with wooden canoes in 1769-70.

*Population estimates for the mainland shore and the southeastern interior were made by the expedition of 1769-70; estimates for the northwestern interior by Estevan Tapis, 1798 (number of houses multiplied by 4); counts for the Cuyama River vicinity by Zalvidea, 1806 (in Cook 1960). See 5.2.1.

Counts for villages on the islands, as well as the estimated total island population (large broken circle centered between Santa Cruz and Santa Rosa islands), were compiled in 1805 by Tapis from native report, and refer to adults only. Island villages are placed according to Kroeber's interpretation (1925, pl. 48) of the Pico-Henshaw list (see Heizer 1955:197-198), except for "Niuoiomi cerca de Toan" (MLP B2676 etc.), cf. "Nimollollo" on the Island of Juan Rodríguez Cabrillo in the years 1542-43 (Wagner 1929:90, etc.). For "Geluascuy" (possibly not a village, and probably not on Santa Cruz) see note to 2.2.5 below.



Map 1

expedition sketches the village as it was in 1794 by eight or ten strokes of the pencil, labels it "Huts," and appears to locate it along the beginning of the rise northwest of the creek.

Population: Portolá: "about 150 heathens." Houses: Crespi: "We counted about 38 quite large (bien grandes) grass houses." Costansó: 24 houses. Portolá: 50 houses. The Pantoja y Arriaga map shows 12 house-symbols. Canoes: Crespi: 5 or 6. The later navigators all mention seeing some here. The copy of Goycochea's list calls the place, in 1796, El Cojo or Sisilopo and its chief Cuyayamahuit (in MLP B1209 the same man is Puyayemehuit, Capitan de Sisolop, whose son was baptized Oct. 29, 1798); the population was 72. Mission records: MLP Indice Sisolop, ó del Cojo; B19 etc. etc. Sisolop; M630, B1069, B2633 Sisolóp; Sisolo often; B1023 Sisoòlop, B1038 Sisoolop, B1042 Sisòolop and often thereafter. MSB B1073 Sisolop, B2186 Chichilop (alias El Cojo), B2308 Chicholop, B2565 Chicholop alias El Cojo. Pico-Henshaw (Heizer 1955:194): El cojo viejo: Shisholop: Ši-šâ'-lâp. The name is apparently connected with the Xexo town and Xexu or Sejo "province" of the sixteenth century Rodríguez Cabrillo expedition (Wagner 1929:88, 427, 457). See also 4.1.2.

3.1.4 ?SANTA ANITA. A small town passed by the first Spanish expedition on Aug. 26, 1769, and "named in passing Santa Ana," was certainly located at the present Santa Anita Ranch and what the maps call the Arroyo El Bulito (the explorers' journals make it a half league from 3.1.5). Pantoja's map of 1782 puts nine house-symbols somewhat inland, at a "fresh-water source" in the creek, with another six house-signs at the base of the small promontory on the northwest side of the small estuary; in 1769-70 the village was "at the shore's edge." A problem arises with its identity in later documents: according to the journal of Pedro Font, in 1776 the first village southeast of the Cojo was El Bulillo, followed by an unnamed small village, and then Gaviota (Bolton 1931:262). Further, a list in MLP Indice mentions Bulito between Cojo and "Tejaj ó Santa Anita"; while the maps still apply the name Santa Anita to the site of 3.1.5, one and a third mile (half a Spanish league) to the southeast. It is not clear why the name Santa Ana should have been changed to the diminutive form without a change of application. On the other hand, the Goycochea list of 1796 puts "Sta. [Anita] Texas," with chief Suluguapuyaut, between El Cojo and El Bulito, as does another list in the MLP Indice; and the population of 30 in 1796, as well as the mission baptismal records, makes Santa Anita a much smaller village than its neighbor, as Santa Ana was in 1769-70. The two are accordingly identified here. Houses: Crespi: "about some twenty." Costansó: "twenty houses upon the sea-shore, where it is wide and spacious." Canoes: Crespi: three were seen. Mission records: MSL D208 (1787) En la Rancheria llamada Teaxa...en el centro del Canal de Sta. Bárbara, y como 30 leguas distante de esta Misn. de S. Luys. MLP B29, C(1790) Theas; B224 Tax; B145,

301, 371, C(1790) Teax; B1022-3 Teâs. B123 Tiajá; B143 Texche (or perhaps Texehe); C319 Texa; B339, 375, 834 Texâ; B491, D75 Texâ; C(1791) etc. Teja; B693, 824, D146 Tejá; M(ca. 1812) Teachí. B53, 138, C(1790) Tahax; B561 Tehax; B640, D93, M687 etc. Tejaj; B1176-8 Texaj; B2406, 2442 (Boscana) Tejac; B2437 (Boscana) Tejack. B129, 235, 311, D26 Texaxa; B232 Texaja; B234 Tejaxa; D13 Tehaja; C(1790) Texaha; M(ca. 1812) Tejase; MSI census of 1820 Tejai. MLP D26 (1791) neophyte died at Estayt, buried "at the next Village called Texaxa where another Christian was also buried." D93 (Calzada, 1793) Rancheria Ytax [Ytias Creek] (digo) (Tejaj)—i.e. the two are not the same. B1176-8 a native of Texaj, mother of 3 children, age 40, husband a native of Naucu, her sister, age 43, native of Anajue. See also 4.1.1, 4.1.2.

3.1.5 ?BULITO. The town named San Zephirino (i.e. Ceferino, Zephyrinus) by the first expedition in 1769 can be unequivocally located, from topographical indications in the journals, at Drake siding or what the maps call Cañada de Santa Anita. Bearings on the Channel Islands taken by Lt. Costansó on January 5, 1770, show, when resected, that his observations were made from the top of a knoll immediately southeast of the creek and southwest of the railroad siding. Pantoja's map of 1782 labels the small promontory at the knoll "point where the Indians fish," and shows a village with nine house-symbols at the shore immediately to the northwest. The problem of distinguishing between this settlement and its nearest neighbor in other records has just been discussed (3.1.4). The evidence that is neither slightly suspect (Font's journal elsewhere errs in details) nor self-contradictory appears to identify the present site with Goycochea's El Bulito or Estait. The itinerary of Longinos in 1792 (Simpson 1961:72) places "El Bulito, abandoned ranchería" southeast of Gaviota, but neither the location nor the abandonment can be correct, and it may be doubted on other grounds that Longinos actually passed this way. Goycochea's distance of two leagues between Bulito and Santa Anita seems over-long; Pantoja makes the space between the corresponding villages on his map only a little too short. The Juan Esteban Pico-Henshaw identification of Santa Anita and Catch, tayet : Ka'-t-sta-yõt may be connected with the modern maps' confusion of the names Arroyo El Bulito, Cañada de Santa Anita, and Santa Anita Ranch; it has no support in earlier records.

Population: Crespi: "a hundred-some souls," altered to "two hundred or more"; later versions, "they must be over two hundred Souls." Costansó: "two hundred souls a little more or less." Portolá: "inhabited by 130 heathens." Houses: Crespi: in the draft version is a figure that may be 20 or 30, written over with a 5, and possibly intended as 25, but later read by the author as 50: "we counted 50 Houses"; "some fifty houses." Costansó: "twenty four houses"; Portolá: twenty five houses. Canoes: Crespi: "We saw three Canoes.... There are Canoes here..., four or five it is said." Portolá: "some." Mission records: MSB1990

Catstait; B2671 Castait. MLP Indice Estait, ó del Bulito; M45, B160 Estaite; B576, 678, 1215 etc. etc. Stait; B988 Extait; B2595, 3058 Estait ô Bulito; B3030 (Payeras, 1820) Estai. B2455 (1810) etc. el Bulito. Goycochea, 1796: "El Bulito. Estait," chief Tulalá, 2 leagues from La Gaviota, 68 souls.

3.1.6 GAVIOTA. The journals of the expedition of 1769 describe the town as ranged upon both banks of the inlet or estuary that once covered the floor of the Gaviota Creek valley. Remains of a Canaleño site (SBA-97; Rogers 1929:256) are said to exist upon the high ground of the northwest side. In the Longinos itinerary, 1792, the place is "La Gaviota, ranchería of many Indians."

Population: Crespi: "People in swarms...we judged they must be not less than three hundred Souls young and old." Portolá: "more than three hundred heathens." Houses: Crespi: "We counted 52 large houses in it"; "about 52 houses were counted at it." Costansó: "fifty hearths." Portolá: "It was composed of fifty houses." Canoes: Crespi: "The Village here has 7 Canoes, some quite large, all of which we saw out fishing." Mission records: MLP Indice Nomgio, ó Gaviota; B163, 371-5 etc. etc. Nomgio; B104 etc., M44 Nomgio; B93 Nongio; B353-5 etc. etc. Nomgió; B11 Nonyo; M47, B2445 Nomio; B117, 380 Nomiò; B465 Onomgio, B466 Onomgio, B60 Onomjió; B2393 (1807) etc. Rancheria de la Gaviota. D20 (Nov. 1790) an interment at Nomgio, distante delas sepulturas de los Gentiles. Burials at Gaviota are recorded fairly often until 1800, though the bodies from all the coast towns were later exhumed and taken to the Mission. MSB B193 (Oramas) Unumio; B377 (Oramas) Honomgio; B381 (Oramas) Onomgio; B247 (Paterna) Onogio; B274 (Paterna) Onojio; B550 Ononjio; B580 Ononjio alias la Gaviota; B669 (Paterna) Onopgio. Geiger from Santa Barbara Mission records: Unuonio. Clemence from Mission San Luis Obispo records (1788): Nogio. Goycochea, 1796: La Gaviota, chief Asiquiyaut, 3 leagues from La Quemada, 99 souls.⁵ Pico-Henshaw: La gaviota : Onomio : O-no'-mi-o (marked as a "capital").

3.1.7 QUEMADA. The expeditions of 1769-70 found no settlement at La Quemada Canyon. In 1776, however, the Spaniards came to a small village northwest of the abandoned site at Tajiguas Creek (see 3.1.8), between which and Gaviota there was only another old site marked by a cemetery (Bolton 1931:262). It may be imagined that the small village was that later known as Quemada, small because it was then being settled. The reason for the Spanish name "Burnt [village]" is unknown, but might suggest destruction by war or abandonment at some unknown date. In 1782 Pantoja y Arriaga's small scale map of the Channel places a "large Heathen village" about midway between the towns at Drake Siding and Goleta Slough; his journal mentions it also: "At 7 leagues east of the Ensenada de la Purissima Concepcion [the bight under Pt. Concepcion; the distance is precisely that to Quemada

Canyon] will be seen a large village on the height of the bluff and very close to the shore, with the Trees nearby, and it is the first one seen [from the sea] in this Distance." A village called La Quemada is mentioned in the Longinos itinerary, 1792, and in the Goycoechea list, 1796, where it is given 250 souls—the largest number of any Channel town at this date. Rogers (1929:247-249) maps two sites at La Quemada, SBA-91 of about 69,900 square feet at the end of the canyon and SBA-92 a short distance to the northwest, the two having a combined area of about 106,250 square feet. The area between the sites, however, is now taken up by railroad and highway construction, and it is easy to suppose a single large original site, long and narrow (note the historical reference to east and west sides just below) and stretching along the top of the cliff where the railroad and southeast-bound freeway lane now run—very much the shape of the village as sketched from at sea on the Pantoja map. The total area might thus have been near 257,300 square feet.

Mission records: MSI B213 Achi, alias: la Quemada; B225, 316, MLP B298, 432 etc. etc., D89, 162 etc., C(1791) Achi; B4 Hachí (spelling not quite certain); B1008 Yachi; B18 Jachi or Yachi (first letter uncertain); MLP Indice Xachi, ó la Quemada; B5 Sahachi; M70 Sachi; B354, 1148 Sachì; B1173 Sacchi; B3042, MSI census of 1820, Chacchi; MLP B2985 Chachi; B1068, 1081 Succhi; MSI B214 Suchí (alias la Quemada); B280, 303, MSB B178, 584 (Paterna) Sisuchi; B200 (Lasuén) Sesuchi; B203 (Dumetz) Sisutri; B546 Sisuche; B569 Susachie or Susachic; B1005 Susuchi; B1747, 2267, 2100, 2517 Quemada (Sisuchi). MSB B1747-57 baptisms of gravely ill: entries 1747-51 "live in the western part of the village," 1752-7 "lived on Eastern side of the village." Several baptisms in 1803 at Stait of natives of this town. MSB B2996 Matiamahuitlaut is chief in 1804 (in Goycoechea's list the chief is Snigulaiasu in 1796). Fr. Estevan Tapis, in 1798, mentions "Casil or Nueva, and Sisuchi or Quemada, where many mountain Indians [serranos] are living." Pico-Henshaw: La Quemada : Shushuch,y : Šu'-šutší. See also 4.1.1, 4.1.2.

3.1.8 TAJIGUAS CREEK. The town named by the first Spanish expedition San Guido is sufficiently identified with this place by various details in the explorers' journals, particularly the placing of what is obviously the Refugio hollow a half league to the southeast (see 3.1.9). Crespi: "another Creek with a good share of Water flowing...through a very narrow Hollow...where there are two large Heathen Villages on the very edge of the sea, with the Creek separating the two." Rogers (1929:245) maps two sites at Tajiguas Creek, SBA-89 and 90, a little over 600 feet apart and across the creek from each other. As in the case of the Quemada Canyon site, however, the in-between area has been thoroughly disturbed by railroad and highway, and the western site as it exists is notably small and far back from both creek and ocean. If the two sites were once more or less continuous, they might have covered 170,430 square feet.

Population: Crespi: "They must not be less than four hundred Souls"; "there must be at least 400 Souls in this town." Portolá: "the number of heathens we saw must have been about four hundred." Costansó: "of about eight hundred souls" (this figure, following directly on "eighty houses," may be a case of dittography). Houses: Crespi: "At the one Village we counted 42 Houses, at the other 37." Costansó: 80; Portola: 80. Canoes: Crespi: "We hear they have as many as 15...of which we saw four; the others they said had been sent to the Islands"; (later) "before reaching it we counted 13 of their 15 canoes out fishing." Toward the end of February 1776, Anza's party of Spaniards found what can be presumed to have been this village, a little way northwest of La Nueva or Refugio (3.1.9), wholly abandoned, and it is interestingly stated (Bolton 1931: 262) that its Indians had gone to Ranchería Nueva because of a war with their enemies. No further record of a settlement here is found, though possibly the native name of the town is preserved in that of the creek.⁶

3.1.9 NUEVA. Present Refugio Beach is mentioned in the Crespi journals under date of August 23, 1769: "About half a league before here [Tajiguas Creek] there runs a stream through another Hollow [Refugio Canyon] at which we saw an old abandoned Village, and it seemed a better place to me than this one [Tajiguas], and more extensive." As has been seen in 3.1.8, Refugio had been reoccupied by 1776, and named La Nueva by the Spaniards in consequence. Rogers (1929:235, 238-241) maps and describes the site SBa-87, which he concludes to have been the one occupied in historic times; the area as discovered by his excavations appears to have been 115,200 square feet.

Mission records: MSB B59 Casil; regularly thereafter, except B548, 1251 Casili; D479 Rancheria Casil or La Nueva; MSI B27 Asil, alias: Casil; B249 etc. Casil; once identified as El Refugio; MSI B169, 196-7, 226; MLP B1608 Asil. MSB B1509-10 parents of children of this village are natives of Calahuasá; MSI B196-7 parents are heathens of Calahuasá; B170, 323 children of a Sisolop man; B226 father from Stait; B225, 316 father from Quemada; B234 father Calahuasá, mother Stait; B397 Sotonocmo native, M60, living at Casil; B427 Calahuasa native F60; B467 Aquitzumu native M50. MSB B2017 (Mar. 1, 1803) Chicuyayeleuit is chief, age 45; B2600 Suûa is chief, age 60, born at Siguosiiu. Goycoechea list, 1796: Casil (es la nueva), capitan Siesanapaciet (probably for Sicsanapachét), 3 leagues from Dos Pueblos and one from Quemada, population 142. Engelhardt (1932b:23): an old woman baptized in 1810 at Casil, "where because of her great age she remained." Pico-Henshaw: El refugio : Kasil : Ka-sil'. See also 4.1.1, 4.1.2.

3.1.10 ?EL CAPITAN BEACH. In May 1770, a "small-sized Village" was encountered at what appears to have been Capitan Creek (or, a bare possibility, Corral Canyon) and named Santísima Cruz by Crespi. It is not.

stated whether the settlement had escaped notice in the preceding January and August, though the mouth of the creek was very likely some distance off the route followed by the Spanish expedition; nor is it clear whether the place was a temporary fishing camp (as suggested by Landberg 1965:90) or perhaps a former large town in process of being abandoned. Pico-Henshaw give, for "Punta capitan," the name Ajuawilashmu : A-wha'-la'-s̃-mu and mark it as a "capital"; but no such name seems to be offered by the mission books (nor does there seem to be any equivalent for Corral Canyon, Ca, je : Ka-hšö', Pico-Henshaw; Ka-hu, Justo-Henshaw). The Longinos itinerary of 1792 (Simpson 1961:72) calls Arroyo del Capitán a stopping-place with water, but not a village. Rogers' site SBa-84 (1929:225) is here, and is very large indeed; but the absence of the place from Goycoechea's list is further proof, if any were needed, that the site was effectively abandoned by the beginning of the mission period. See also 4.3.1.

3.1.11-3.1.12 DOS PUEBLOS (Fig. 1). It is quite uncertain whether this was the site of the "two towns" mentioned by the sixteenth century Rodríguez Cabrillo expedition (see other examples cited at the end of 2.1 above). There is no doubt, however, of its being the large town (Costansó), or towns (Portolá, Crespi) called San Luis Obispo in 1769.⁷ In 1775, Lasuén (in Lamadrid 1963:I:143-145) gives an eyewitness account of a fight in which Spanish soldiers, attacked with arrows by Indians "entrenched in their houses," killed six natives^B at "the place called Los Dos Pueblos, there being two villages together, and latterly known by the name San Pedro y San Pablo" (the second name is an obvious religious equivalent of the first, and was used by Font in 1776, and later).

Population: Crespi: "They must be from six hundred to seven hundred Souls"; "they must be not less than six hundred souls." Costansó: "must be over a thousand souls." Portolá: "two towns...each inhabited by about 800 heathens." If any sense is to be made of these estimates ranging from 600 to 1600, it might be guessed that Portolá was wrong in dividing the population evenly between the two villages; that Crespi based his guess only on the smaller town (near which the Spaniards camped, to judge from the later sites); and that Costansó perhaps tried to strike a balance. The number of inhabitants might then have been 1100. Houses: Portolá: "about sixty houses each"; possibly the figure is based only upon the nearer and smaller village. Canoes: Crespi: "Many, but I never could tell how many"; "one village has ten canoes." Goycoechea's list identifies Dos Pueblos with only one native name, Miguigui, but lists two chiefs, Yguamaita and another who is elsewhere referred to as the temí of "Cuyamu"; the 1796 population is given as 210. See 2.1, 3.1.23 note, 4.1.2, 4.2.1, 4.2.2.

3.1.11 ?"Miquigüi." Rogers and others have connected this name with the larger, northwestern site SBa-78, apparently because of its order of

Figure 1. The Dos Pueblos sites (Schumacher 1877:f. p. 56).

Added: A, site of semisubterranean structure excavated by Harrison (1965:103; scale-labeling corrected). B, semisubterranean "temascal" excavated by Rogers (1929:203). C, Harrison's "Area C," with very ancient burials. D, "Kitchen heaps" plotted by Yarrow (1879:41).

Dotted lines indicate limits of the two sites and the northwestern cemetery as shown by Rogers; outer limits of the northwestern site suggested by Harrison (1965:101). All added material is approximately located. Hachures shown within the northwestern site probably indicate excavations by pothunters; the dashed line represents a fence at the east side of a potato field in 1875.

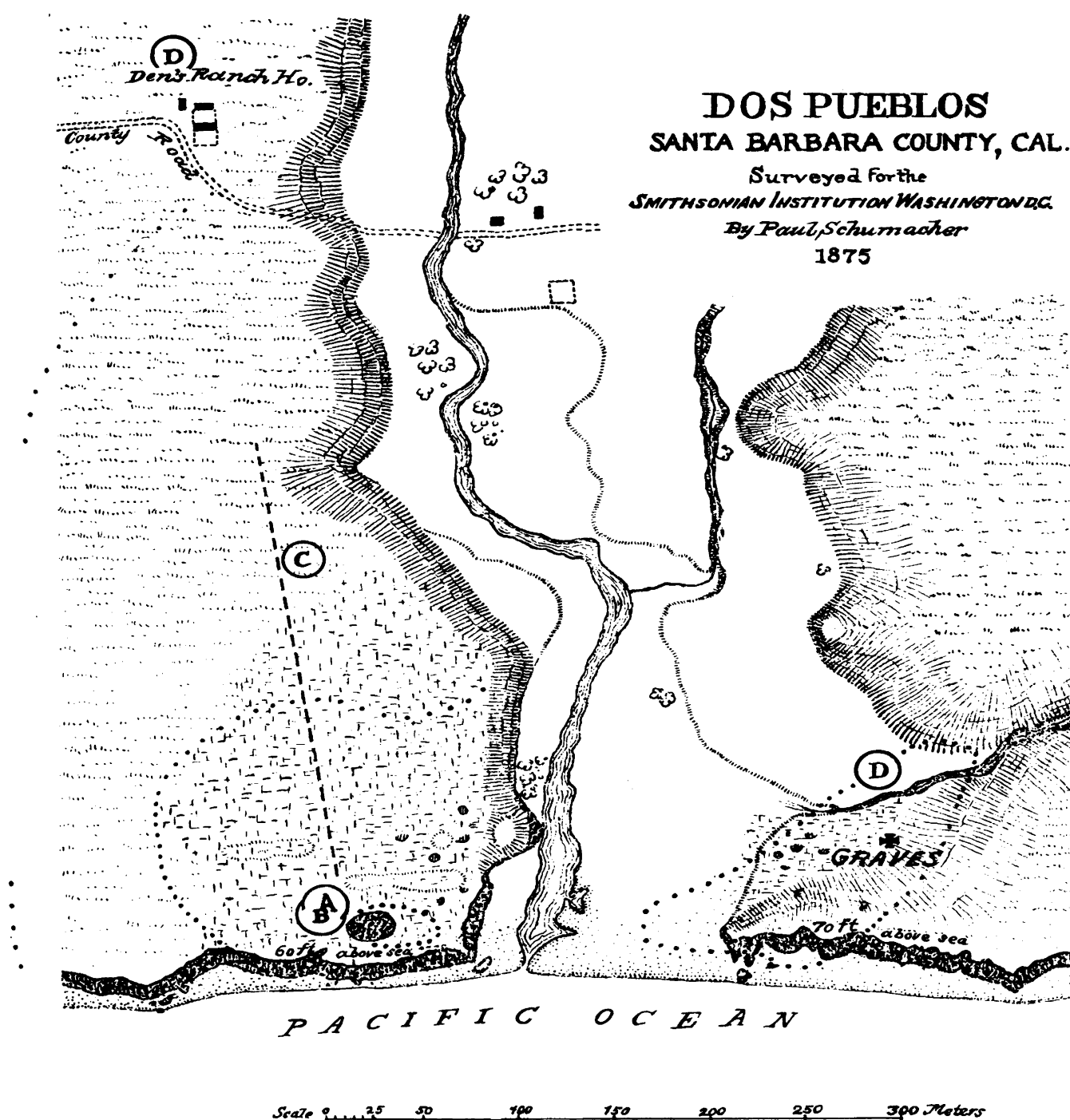


Figure 1

appearance in the Henshaw lists, and the number of baptisms certainly indicates it was not the name of the smaller town; but see the discussion in 2.1 above and 4.1.2 below. The site as plotted by Schumacher is about 322,800 square feet; by Rogers (though his plan is defective), about 386,700. Harrison (1964:203; 1965:102) gives dimensions for the original area that would suggest a site at least three times as great. However, most of the topsoil has been removed, archaeological material found beyond the smaller area was millennia old, and, certainly for comparative purposes, the kitchen middens plotted by the earlier investigators can be taken as the site-area surrounding the historical village.

Population: Crespi (May 1770): "The larger village...is on the top of the tableland...such numbers of heathens...we judged it to be a village of seven or eight hundred souls" (thus raising his earlier estimate—see the preceding paragraph—for both towns). Houses: Crespi again: "There must be around a hundred houses, all very large." Mission records: MLP Indice and B2471 Miquiui ó los dos Pueblos; B33 Miquejui; B698 Miguigui; B1683 Miquihui; D144 Miquigui; B2206 de la Rancheria de los dos pueblos; a baptism in 1804 at Estait. MSB B129, 133, 166 (Dumetz) Migijui; B201 Miquihui; B208 Miquigui; B426 Miquijui; B489 Miquihui called Dos Pueblos; B289, 1459 Miquihui; Miguigui very often; B2675 etc. Miguigui called San Pedro y San Pablo; D172 (1791)...called San Pedro y San Pablo or Dos Pueblos (a Christian burial there). MBV B784 Miquigui alias los dos Pueblos (father of the convert a native of Sisuchi, 3.1.7 above). Pico-Henshaw: Migiu : Mi-gi'-u; Justo-Henshaw Mi-ki-wi; Henshaw Santa Rosa Id. vocabulary: rancheria at Dos Pueblos : mi-ki-wh'a; the spelling Mikiw is apparently due to J. P. Harrington.

3.1.12 "Cuyamu." The site SBa-77, on the southeast side of the creek, is given only about 39,000 square feet by Schumacher, but about 126,670 by Rogers, who extends it up the hill and allows for a portion destroyed by erosion.

Mission records: MSB B126, 448 Cuyamo; B1619 etc. Cuyamu; Clemence from Santa Barbara Mission records, Cuyamu, llamada San Pedro y San Pablo. B655 Yaejuat (spelling doubtful), chief of Cuyamu, age 80, baptized Dec. 10, 1791, in articulo mortis. Tenuaquiachet (for Temi-?) is named as a chief of Dos Pueblos by Goycochea in 1796. Tapis in Engelhardt (1932a:7) writes that in April 1801 a certain Lihuiasu came with about six others from Atsililihu⁹ and Sihuicon to set fire at night to Eljman, where they killed five persons and wounded two, because the heathens there were relatives or friends of Temiacucat chief of the Cuyamu rancheria belonging to Dos Pueblos, whom they thought to be the author of the epidemic of the dolor de costado (tuberculosis? pleurisy?). MSB B2210 Temiacucat, chief of Cuyamu, in 1803, age 55. Pico-Henshaw: Cuyamu : Ku-i-ya'-mu; Justo-Henshaw Kui-a-mu. (See also 4.1.2, 4.2.1.)

3.1.13-3.1.16 Goleta Slough towns (fig. 2). Crespi, in correspondence from San Diego early in 1770, assigns four or five large villages to this important and crowded area, and estimates a population of 2000 (Bolton 1927:25, 40). His journals, the existing versions of which were all written out months later than these letters, obviously represent attempts at a more careful and less enthusiastic estimate; and it will be suggested below that the population in some details should have been placed still lower. The earliest existing journal text can be paraphrased: The scouts say there are seven villages; we passed through one and saw three (including the island). A later version: Five villages, "three quite large, all of which we saw, and the other two the scouts reported they had seen in the vicinity"; "there are five or seven of the villages." In May 1770: Five villages, three large, two small; besides the island town, "the other two Villages are also extremely large, and with many houses"; "also quite big"; "all the Souls in all these Villages must number not less than 1500." Costansó: besides the island town "there are two other less numerous towns...we passed through the midst of one of these to get to the water where we camped." Portolá: "during this day's march we have met seven towns, the smallest of twenty houses." The area is again described by Font in 1776 (Bolton 1931:260): "we came to Mescaltitán.... Here there are three large villages, two somewhat apart, on the banks of the estuary, the largest one being on the road which we were traveling." Juan Pantoja y Arriaga took a boat into the estuary on August 12, 1782: "when the tide rises it enters a large flat, making a Lake of it.... On the Shores of this Lake are located 5 villages, and one of them, lying to the North, is very large. The Heathen population that inhabit them is numerous, as we have seen, and by what the Soldiers say who travel about this country as Couriers, they may reach the Number of 8 to 9 [hundred]¹⁰ persons." Twelve years later, Vancouver's expedition paid the place some attention. "Within this bay a very large Indian village was pleasantly situated, from whence we were visited by some of its inhabitants; amongst whom was a very shrewd intelligent fellow, who informed us in the Spanish language, that there was a Mission and a Presidio not much farther to the Eastward" (Vancouver 1801:IV:326). The bay was visited by land; "it branch'd back into the Country among extensive salt Water Marshes on which grew vast quantities of Samphire.... Round the bottom of it we found three different Villages of upwards of 30 conical huts in each, we visited two of them & saw but few Natives & these chiefly old men & old decrepp'd women," for the rest were said to be off gathering acorns (Menzies in Eastwood 1924:319). Longinos in 1792 also refers to "Mescaltán, three heathen villages together." In 1769 Crespi had been aware that the other villages besides the island town had many canoes, "though I was never able to learn how many." A reconstructed map of the area is offered here in Figure 2, together with the very informative original map by Pantoja y Arriaga. The various small Canaleño archaeological sites found along the

Figure 2. Reconstruction of Goleta Slough, with Canaleño sites of Rogers (1929), Orr (1943a), and others.

Inset: Comparison with Pantoja y Arriaga map, 1782. (After Bolton 1930:III:240-241.)

- A. "Saspilil," SBa-60 (3.1.13)
- B. MESCALITAN ISLAND (3.1.14)
- C. SBa-45 (3.1.14)
- D. ?"Geliec" (3.1.15)
- E. ?"Alcas," SBa-43 (3.1.16)
- F, G. Other settlements in 1782 (3.1.16)

Sources: Field notes by Jasper O'Farrell on Dos Pueblos rancho, 1845 or 1846. Huntington Library, O'Farrell Papers, OF 10.

Sketch-map (diseño) of La Goleta grant toward 1850. Bancroft Library, land case records, map 1293.

U.S. Coast Survey, topographic surveys, registers 1230 (1870) and 1267 (1871). U.S. Coast and Geodetic Survey, Washington, D.C.

Rogers 1929:136-177.

Orr 1943a, pl. 1.

Weir 1950, map 22.

U.S. Geological Survey, Goleta Sheet, 1951.

Maps in Recorder's Office, Santa Barbara County Courthouse.

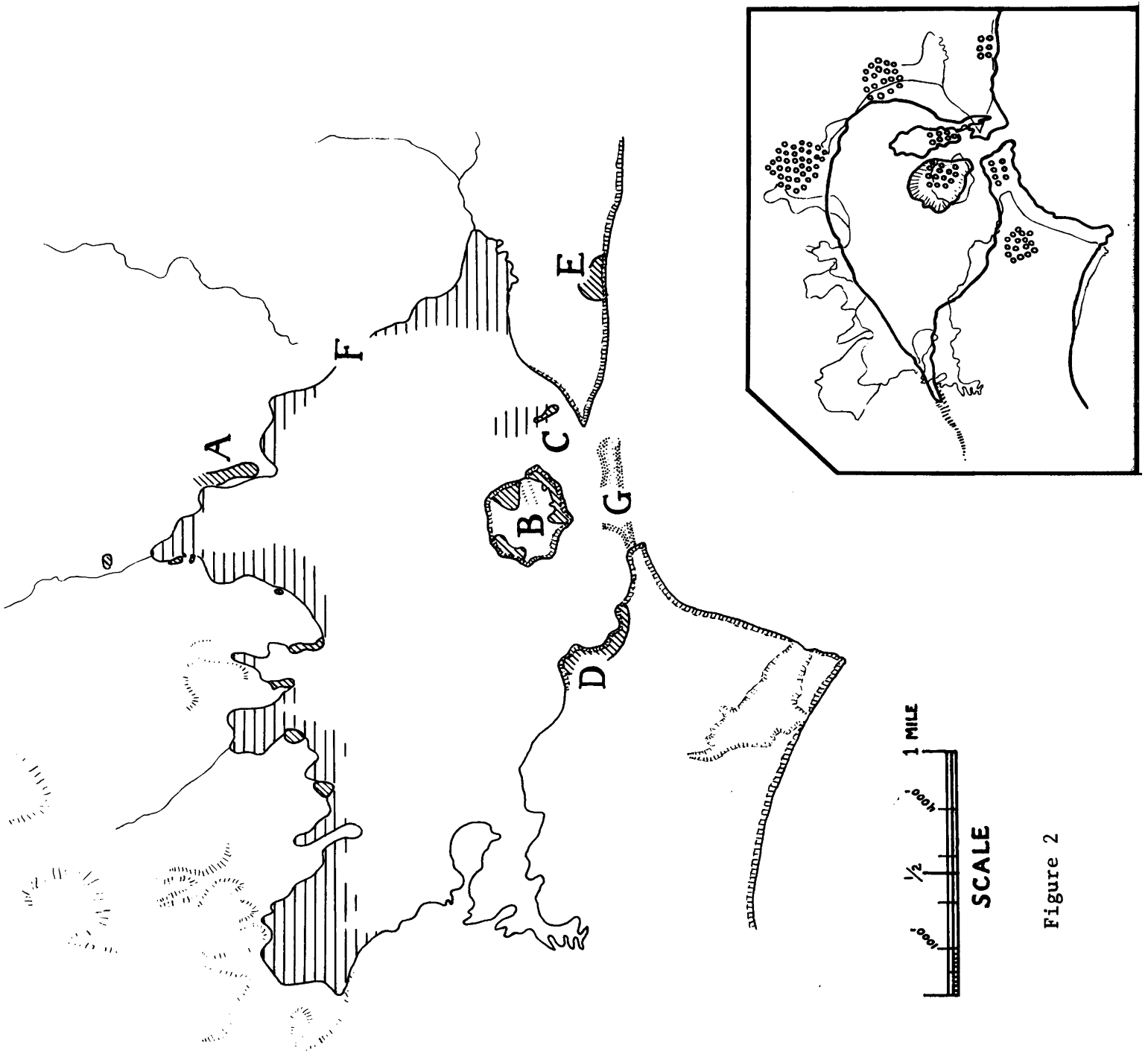


Figure 2

more northwesterly shores of the old lagoon seem to have been already abandoned by the Spanish occupation, no doubt because of the beginnings of the great outwash of sand and gravel from the mountains that has been altering the shoreline so vastly ever since. Pantoja's map suggests why the accounts differ in the number of the villages, and why the application of Spanish names was so confused in the mission period. Four unequivocal native names covering these settlements are given to us by the records, and will determine the number and content of the following sections. See also 4.3.3.2.

3.1.13 "Saspilil." This largest village of the vicinity in Mission times is to be identified with the largest group of house-symbols (37) on the Pantoja map, and with the corresponding description in Pantoja's journal; and thus with the town through the middle of which the Spanish expeditions passed in 1769 and 1776—when, also, it was the largest. Since Hollister Avenue must represent the oldest main trail approaching this village from the southeast, the slight jog at the present Goleta intersection must be due to a short-cut that came into use after the slough had become filled in on the village's northwest side. The site is that called SBa-60, portions of which still exist between Hollister Avenue and the freeway, along the northwest side of the road into Goleta. Rogers (1929:173) mentions two very approximate dimensions that suggest an area near 800,000 square feet; McKusick (1961:340, plan between pp. 348-349) offers scraps of information that might suggest it was a little smaller.

Mission records: MBV B92 Sajpílin; B2018 Sajpilil (father of a child at SISAR CREEK). MSB B4 etc., etc. Saspilil; B498, D82...or San Gabriel; B581... or Ra. San Rafael; B2773, 3009, 3021, 3041...or San Miguel; B1331, 1370 or Mescaltitan. B7 etc. Xaspili; B131 etc. Saxpilil; B198 etc. Sagpilil; D235 (1793) Saspil'hil; B734 Saspil. Geiger from Mission Santa Barbara records: Saxphilil, Saspilhil, Sajspilil, Sagxpilil, Saxgpiliz, Sacspili. (The name, it has been suggested, must be the same as that of another village, called Graciosa Vieja, on present Vandenberg Air Force Base, and has been identified with the word for "bowstring, sinew" in vocabularies; but compare also the apparently homonymous term for "trunk" or "tree roots.") Goycochea's list gives the 1796 population of Sacpili as 202 and names the chief Yuyunachet. MSB B1946, Sept. 11, 1802, chief Yuyunatset is gravely ill; early in 1803 Ajuyaut, age between 41 and 50 and a native of Siujtu (3.1.17), is chief of Saspili; B2006, Feb. 27, 1803, Sagicayaut is a chief, aged 24 and ill; later in 1803 Matihuluit is chief. Pico-Henshaw: San Miguel (La patera) : S,aj pilil : Sšpi'-lil. Justo-Henshaw: Sa-pi'-li'. See also 4.2.1.

3.1.14 MESCALITAN ISLAND (Pueblo de la Isla or Aislado, Santa Margarita de Cortona, etc.). It was this village that was originally named Mescaltitlán by Spanish soldiers in August 1769, from a fancied resemblance of its

situation to the town in the present state of Nayarit. The original area of the island was about 2,425,000 square feet; however, Orr's sites (1943a) as marked on his aerial photograph take up only 34 per cent of the surface (823,930 square feet). It is noteworthy that these sites occupied exactly those areas of relatively high ground that would have been visible from the northeast. Since the descriptions left by the first expedition are based entirely upon a rather distant view from that direction, their estimates of houses and population might well have been affected. On the other hand, Pantoja, in 1782, includes in this village the site SBa-45, a small bar in the middle of the slough: "two Islands are found, one of them high and the other low and flat [rasa], the former is the larger in circuit, each having its own large village and they call it Mescaltitàn." His map gives the two islands a total of 21 house-symbols, which by their placing might suggest occupation of only the northeastern site on Mescaltitan Island, where Yarrow (1879:36) plots the then-visible kitchen middens. The cemetery-rich southern site, however, contains more than one graveyard with European artifacts (Orr 1952:218-219). Yarrow (1879:35-36) collected there fine glass beads in an olla, an iron axe, a knife, and a copper pan used to cover a skull. The total area of these two sites alone would be about 654,750 square feet.

Population: In Goycoechea's list, 1796, the village is Geloó, chief Guinahuit, with 101 souls. At the time of the first expedition: Crespí: "We guessed...no less than eight hundred Souls in it"; (January 1770) "The Island Town alone must have from six hundred to eight hundred souls; (May 1770) "this alone must hold about eight hundred souls." Costansó: "numerosísima." Portolá: ""the largest village...in which about 800 heathens have been seen." Houses: Crespí's first estimate, in correspondence, was 200, but his journals make it less: "From the distance we were at, it seemed it must be more than a hundred very large round Houses"; (May 1770) "about a hundred...houses." Costansó: "innumerable houses: so that some there were affirmed that they had counted more than a hundred." Portolá: "the largest village exceeds eighty houses." Canoes: 16 says Crespí, presumably only by report. Mission records: MBV B166 (a girl from Montecito) Murio en la Ranca. de Geló, alias la Ysla, y la enterraron los Gentiles en la dha Ranca.; D94 (same subject, 1786) la rancheria de Gelo, que por otro nombre so llama la Ysla de Mescaltitan; B269 (margin) Gellò (text) Gelo. MSB B41 etc. etc. Geló; B101 Gelupc (Paterna); B1934 Isla de Gelo; B577 known as Rancheria de San Miguel; B2832...San Francisco. B2340-1, chiefs of Mescaltitan in 1803 are Chuicma, age 46, and Chichimahuit, age 36 (no doubt the man in Goycoechea's list). B2503, a native of Tsnojotso is living at Gelo in 1803. Pico-Henshaw: Hel-oh : Hēl-lo'; Justo-Henshaw: At Moore's Island. Beeler (1957:239): Hel'o? "The Water" the name of a native village not far from Santa Barbara. See also 4.3.3.2.

3.1.15 "Geliec." This village is not as easily placed as the last two. Justo-Henshaw locate it "Near ocean near Moore's Island," for which the most reasonable interpretation, considering the wording of their other locations, might be the outer or northwestern peninsula, where, on Pantoja's map, a village (given 16 house-symbols) occupies Rogers' (1929:140-141) long and ill-defined sites 49 and 50 at the top of the bluff on the inland side of the university campus. But the name of a chief in 1796 suggests a chief of "Saspilil" in 1803. Information is wanting to locate the name Las Llagas used in Mission times.

Mission records: MSB B33 etc. Geliec; B45, 47 Geliuq; B76 (Oramas) Gel'et; B80 (Oramas) Geliec; B85 (Lasuén) Elihec, B90 Eliec; B100 (Paterna) Geliga; B159 (Paterna) Eliet; B164 Geleec; B211 Jeliec; B232 (Paterna) Gelie, B659 (Miguel) the same; B556 Gelieque; B1245 Geliez. B499 Rancheria de las Llagas or Heliyic; B591 Geliec or Las Llagas. Geiger from Mission Santa Barbara records: Gelioc, Geliyeg, Gelieque. Pico-Henshaw: He-liyec : He'l-i-ok (marked as a "capital"). Goycochea, 1796: Gelijec, chief Ajuiat, population 66. Daniel Hill (Woodward 1934:120), after giving the names of the three neighboring villages in forms that might be expected from Santa Barbara traditions of the 1820's (La Patera, Mescaltitlán, Salpalil, Hello or the islet, Alcas) unaccountably substitutes "Oksbulow" for Heliyök.

3.1.16 "Alcas." In the mission records this village shares Spanish names with both Saspilil and Mescalitan Island. On the whole, the two most likely sites to be found on the Pantoja map are on the southeast side of the inlet: a large one (19 house-symbols) whose site has since been destroyed or buried by stream erosion or outwash; and a mere six house-symbols at the edge of the ocean cliff, corresponding to site SBa-43 (where Yarrow found burials with European materials up to 200 yards inland as well as a "dance floor"). Either site could agree with the Justo-Henshaw location of Alka's "Near Moore's house," though the latter one may fit it a little better and agrees with the small population in mission times. (The larger village of 1782 might conceivably have been abandoned because of shoaling in the lagoon.)

Mission records: MSB B49, 81 Alcaz; B86 (Paterna) Alcaza; B146 (Paterna) Ancaz; B204 Ancas; B321 (Calzada) Ancasg; B221 Alcaj; B784, 1220 etc. Alcajch; B1021 Alcax; B1693 Alcahes; B592 Alcaz or San Rafael; B2735, 3128...or San Francisco. MBV B255 Alcás. Geiger from Santa Barbara Mission records, Alcahch, Alcajcz, Alcaaz, Alcass, Alcax, Arcas, Arcasz, Arcaz. Clemence from Mission Santa Barbara B(1787), Domingo Aliliclique, capitán de la rancheria de Alcas, 41 years old. Goycochea, 1796: Alcas, chief Sumumaguit, 51 souls. Pico-Henshaw: Al caash : Al-kă-ăš. (Cf. in the vocabularies the word for "sea otter"—in Henshaw's spelling, not Pinart's.)

3.1.17 San Joaquin, Pueblo de la Laguna, etc. A town at what appears to have been the site of the present city of Santa Barbara was briefly described in the rutter of Geronimo Martín Palacios compiled in the year 1603 (Carrasco y Guisásola 1882:160; Portillo y Díez Sollano 1947:350): "at ten leagues from the said point [Concepción] at the edge of the sea is a very large town of more than two hundred houses, and alongside it many oak-groves on the plain land and on the height many cupped pines." The distance quoted is very nearly precise when figured in geographical leagues, though if common sea-leagues are used, it comes only to Dos Pueblos Canyon. The pines, however, are mentioned by Pantoja in 1782 as the principal mark of the Santa Barbara anchorage for ships coming from the northwest (there being then no chance of confusion with the trees nearer San Marcos Pass). In 1769, the Spaniards, after passing the slough at the mouth of Mission Creek and going near, though not through, a large Indian town where they "saw in passing a running spring of water at the very edge of the Houses," went to camp at a grassy tableland about two musket-shots from the village, close to a tule-fringed freshwater lake. In the light of the following discussion and some other topographic indications, the Spanish camp appears to have been near the edge of the city college campus where Montecito Street turns and runs up to the beginning of the Mesa, the lake having occupied the old stream-bed depression at the foot. In the first Expedition records, the Indian town is not specifically stated to have been at the shore, though the fact can be taken for granted, or inferred from the further fact that fishing canoes were called in by shouting from the village. The navigators of 1782 found the town close to the anchorage under present Castillo Point: "The Indians have their village at the very edge of the shore, and if there were ever a high sea here it would be drowned out, or they would have to be moving it continually; and they are no such Lovers of hard work.... The water comes from a springing well (poso manantial) belonging to the Indians and enlarged—with proper permission from them—by our Seamen." Vancouver also mentions the village and the water source. What is apparently the only surviving contemporary picture of a Canaleño village is the offshore sketch of Santa Barbara by John Sykes of Vancouver's expedition (reproduced at extreme reduction in Wilbur 1954, no. 12; the engraved version has some unfortunate changes). Some fourteen or eighteen hemispherical (faintly bulbous) native houses can be picked out, extending just back of the beach sand from in front of the east side of Burton Mound west to the lower end of Bath Street (measured by the given distance and the horizontal angle in relation to other landmarks). The mound seems to appear in back of houses at the east end of the village. The archaeological sites in this much built over area are Rogers' 27, 28, and 29; that is, a narrow shoreline site southeast of Burton Mound, the crest of the mound itself, and an indistinct site farther toward the point, apparently between Bath and Castillo Streets. (Between Castillo and the extension of Rancheria Street—though Geiger considers the latter name possibly significant—a

small estero formerly lay behind the beach.) In other words, the village as located from historical records does not correspond well with any of these shell mounds; and Rogers (1929) and J. P. Harrington (1928) seem certainly wrong in restricting the name "Siujtun" to Burton Mound. for their source (Pico-Henshaw) seems rather to give the latter (and not the small site 27) the name "Amolomol."¹¹

Population: Crespí: "so many people of all ages, men, women and children, it seemed a great Town to us"; "so many heathens standing together waiting for us, that we judged there could not be under seven hundred souls...all the Village, men, women and Children came over, we judged they might be Six hundred souls"; "No doubt five hundred Souls must have come from the Village, I should rather say six hundred: there must have been over two hundred of the men, the women the same, and a great many boy and girl children, as well half-grown as infants." In January 1770, four or five hundred souls were found weeping at a funeral rite; in May 1770, there were "some 500 souls." Costansó: "the most numerous town seen up to here: we supposed it must be over six hundred souls." Portolá: "more than 500 heathens." Houses: Portolá: "it had forty-some houses." Canoes: Crespí: 7 were seen out fishing; Portolá: "This town had ten canoes." Mission records: MSB B8 Siuchi; B11 Soutu; B16 Youta; B18 Siotu; B21 Siut or Suit; B88, 157 (Paterna) Suit; B31, 735 (Miguel) Siuctu; B46 etc. Zutu; B65 Yuctu; B77 (Oramás) Sciuctu; B144 (Dumetz) Siutu; B151 (Paterna) Siuti; B181 Siugtu (Lasuén); B508 (Oramás) Siuchi; B604 (Miguel) Yuctu; B984 (Miguel) Siuxtu; B1029 Siujtu; B180 etc....next (imediata) to the Santa Barbara Royal Presidio; B482...proxima al Presidio; B2767, 3027... (San Antonio). Pico-Henshaw: El puerto de Sta. Barbara : Siujtun : Si-u'k-tun; Justo-Henshaw: Si-u'k-tun. Pinart (in Heizer 1952:2, 38), Siuxton. Goycochea, 1796: Yuctu at the Presidio, chief Yanonali,¹² 125 souls. See 4.0.1, 4.1.2, 4.2.1, 4.3.2, 4.3.3.1, 4.3.3.5.

3.1.18 MONTECITO. At springs along the shore's edge between Carpinteria and present Santa Barbara, in August 1769, the Spanish expedition passed through the ruins of two towns that had been burnt about three months before; the one nearer Santa Barbara is said to have been clearly very large (see 4.3.2). Crespí gives the distances to the two abandoned sites from Carpinteria as a league, and two and a half leagues of the total four leagues to the San Joaquin village. A proportional comparison of the corresponding distances given by Longinos in 1782 (3, 2, and 2 leagues) and Goycochea in 1796 ($1\frac{1}{2}$, $1\frac{1}{2}$, $1\frac{1}{2}$) is sufficient to identify the larger northwestern burnt town with the Montecito village of the mission period, and with the site SBa-19 (Rogers 1929:81) which was of very great but undetermined extent. Font's journal (Bolton 1931:258) shows that the place was inhabited again in 1776, and the village is on Pantoja's small scale map of 1782.

Mission records: MBV B11 la Ranca. de Saluhaj, alias del Montecito distante del Presido. de Sta. Barb[ara] como una legua caminando para esta Misn.; B13, D4 (Sept. 1783, Dumetz) Saluhaj, alias el Montesito; B91, D94 (Dumetz) Saluag; B164 (Dumetz) Sáluag alias el montesito; B118 (Santamaría) etc. Ranca. de Salaguaj, alias Sta. Barbara;¹³ D428 Salaguáj (Santamaría); D551 Salhuaj altered to Salahuaj (Santamaría); B888 (margin) Salaguac (text) Salaguaj. MSB B23 Salaguas; B39 Salagua; B412 Salagua...called Montecito; B481...llamado por los nuestros el Montecito; B724, 1382...alias el Montecito; B524 Salaguaxa; B1304 Salahuax; B790 Chalaguas; B806 Chalajuas; B835...(alias el Montecito); B1455 Salahuag; D340 (1796) Chalajuaj (Montecito). MBV B131 father of a native is from Sisolop (3.1.23). Goycochea: El Montecito, chief Sagapueje (a woman), 62 souls. Pico-Henshaw: La matanza : Sh,hal waj : Ša'l-a-wa. See also 4.1.2, 4.3.2.

3.1.19 PAREDON. Nearly everything said about the preceding Montecito village holds true for this one, except that it seems to have been smaller in every parameter. Font, in 1776, discusses it under the same name ("San Buenaventura") as the Carpinteria town, perhaps suggesting that it had been resettled from the latter. The eligible sites are the mouth of Toro Canyon Creek at what the maps call Loon Point, where site SBa-13 is found, or the low shoreline a mile farther southeast, where twentieth century maps place the mouth of the Arroyo Paredon (or "Parida") and where the old Carpinteria pier mentioned by Pico-Henshaw was located. "Paredón" means "cliff" or "high bank," so the former site is indicated. SBa-13 (Rogers 1929:63) apparently had an area of about 125,000 square feet, allowing for obvious dissection by the creek in recent times.

Mission records: MBV B24 Coloc alias el paredon; B1381, B1890 etc. Colóc; D93 (Dumetz) rancheria del Paredon, ô Culoc. MSB B206 Coloc; B1316, 1366 Coloco (Paderon); B213-8 Holoc; 576-8 baptisms at Oloc, parents are from Coloc. Goycochea, 1796: El Paredon, chief Atasuit, population 31. Pico-Henshaw: El muelle de la carpenteria : K,olak : K'â'-lâk. See also 4.1.2, 4.3.2.

3.1.20 CARPINTERIA. This site, SBa-7 on the south side of the creek, is a well known one. The area may be taken as that of Rogers' (1929:49) principal Canaleño site, at the very shore, which the early explorers and later sources (Ford 1960; Bryan 1931) agree upon as the spot inhabited in historical times: 423,000 square feet.

Population: Crespi: "Many more people than even the Assumpta [3.1.23]"; "many more people than in the two previous places [3.1.22, 23]." Costansó: "as populous as the past ones." Portolá: "about 300 persons." Houses: Crespi: "We counted 38 very large round grass-roofed houses." Costansó: 32; Portolá: "there were 38 houses." Canoes: Crespi: two were seen, and one being built, wherefore the place was named the Carpintería,

"because it looked like a ship-yard", "I cannot tell how many they may have." Portolá: "with their seven canoes." Mission records: MBV B47, 49 (and regularly by Dumetz) Misosbno vulgo la Carpinteria; B127 Misosbno altered to Misobsno alias Sn Roque (Dumetz); B205 (Dumetz) Misobsno; B352 (Dumetz) Misosbno (margin) Misosbno with p superscript over the s; B380 (margin) Misospno (text) Misosbno alias Sn Roque; B191 (Arroitia; margin and text) Misobsno; B235, 398 (Santamaría) Misópsno; B1315 (Señán) Michopsno; B1396 etc. etc. (Señán) Mishopsno. MSB B299 Misopsno; B480 (Lasuén) Pisopsno apparently altered to Pisopno; B517-8 (Miguel) Misosno; B538 (Miguel) Mesosno; B728 (Miguel) Misosno; B786 Michopsno; Clemence, from MSB records Mischopsno; B999, 1046, etc. Misosnos; B3087 Misobs doubtful; B1391, 1426 etc. Carpinteria, Geiger from MSB records: Michopsno, Missosnos, Mixocno. MBV B551 father from Salaguaj (3.1.18); B417 mother from Sucu (3.1.21); B726 father a native of Lups (i.e. the island), casado...en Misopsno; B1045 father from Mugu (3.1.24); B1770-2 mother from Coloc (3.1.19); B1542 a baptism at the village, July 9, 1802. MSB B2523 Patsajahuait is chief, age 55 in 1803. Goycoechea, 1796: La Carpinteria with chiefs Pachajaguay (cf. just above), Isanuna and Nemaita, and 97 souls. Pico-Henshaw: Arroyo de la carpenteria : Mishhoshnou : Miś-hâp'-snâ. See also 4.2.1, 4.3.2.

3.1.21 RINCON (Santa Clara de Monte Falcón, pueblo del Bailarín, etc.). The town discovered in 1769 was "on a Hill at a Point formed by the Bay here," "at a little Knoll at about some fifty paces from the Sea-water," and very close to Rincon Creek. The way or road being followed by the explorers led through the midst of the houses. Writing a few years later, Pedro Fages observed: "I myself had stones thrown and arrows shot at me in the year '72 going down to San Diego, at a Town we called the Rincon, the Indians seizing the opportunity to fall upon me with my Escort engaged in winning past a bad stretch, or drop-off, which faces you unavoidably in the midst of one of their Streets." Rogers (1929:40-44) describes the extensive archaeological sites hereabouts. The historical records are sufficient to disprove his belief that the southeasternmost site, on the Ventura County side of the creek, was the one occupied in historic times. The actual village site, on the steeply descending point of land between the stream and the shore has been largely destroyed by railroad, highway, and other modern works, but the residual kitchen-midden soil is plotted by Weir (1950, map 31) as covering perhaps 279,000 square feet. Weir's map, however, requires certain adjustments in order to agree with actual culture; these made, the midden area is seen to be coextensive with the lower slopes of the point, with an area of about 361,150 square feet. (See fig. 3.) The Spanish expeditions of 1769 and 1776 obviously went through the village and camped at the top of the slope (where there happens to be a separate, and very extensive Indian site, B—B on the figure).

Population: Crespi: "The heathen population...could not be counted, off of them being as it were in a bunch (como amontonados)."
 Costansó: "a numerous town.... It seemed to us even more numerous than that at La Asumpta [3.1.23]." Portolá: "past three hundred persons."
Houses: Crespi: "We counted about sixty quite large grass-roofed houses."
 Portolá: "thirty-some houses." Canoes: Crespi: "six or seven" were seen (altered to "seven" in the final version); in May 1770, they saw three or four pulled out of the water, and several at sea. Portolá: "there are seven canoes." Font, on Feb. 24, 1776, counted nine "Launches" besides one that was "out of repair" or "to be mended."
Mission records: MBV B3 Rancheria de Succu, alias Sn Matheo (doubtful, the second c done with two strokes); B10 Sn. Matheo, alias Succu; B48 Sucu alias Sn Matheo; B56 Rancho. de Sucu alias Sn. Matheo (text), del Rincon (margin); B60 Rancheria del Rincon alias San Matheo...Rancheria de Sucu; B815 Rancheria del Rincon, Alias Sn. Matheo, (margin) Sucu; B174 margin apparently Suco altered to Sucu (Santamaría); D115 added later Chucuu; B1374 (Señán) etc. etc. Chucú. MSB B815 Chucuu alias Rincon; B1026, 2781, 1326 Chucuu alias el Rincon; B2461 Succu; B645, 1074 Sucu. MBV B5616 father from Esnajaleyegue; B815 father from Misopsno (3.1.20); B715-7 father from Lups; B1343 father from Coloc; B1344 father from Matilja; B1345 father from Misopsno. B1428-9 two old people baptized at the village, Nov. 22, 1801; B1643 another Sept. 28, 1802. B748 En 25 de octubre de 1793 en la rancheria de Sucu alias Sn. Matheo Bautize privadamente â un [a] Parvula de 6 â 7 años, en peligro de muerte, por causa de quatro flexazos que tenia en el cuerpezito, Hija de Padres Gentiles, difuntos de pocos dias, a dolencia de flexados, que otros Gentiles les dieron...(margin) Murio. Goycoechea, 1796: El Rincon; chief: has none; 5 leagues from San Buenaventura; 68 souls. Pico-Henshaw: El rincon : Shucuw : Shu-ku'; Justo-Henshaw: Su'-ku. The name must be connected with the sixteenth century Xucu or Xuco town and "province" of Rodríguez Cabrillo's expedition; as has been noted most clearly by J. P Harrington (1928), the name in one list is followed by Bis/Sopono ("Misopsno" 3.1.20), Alloc ("Coloc" or "Oloc," 3.1.19; elsewhere in the lists Coloc and Coloco), Xabaagua ("Salhuaj," 3.1.18), and Xocotoc (presumably "Siujtun," 3.1.17)—in that highly significant order. See also 4.0.1, 4.2.1, 4.3.2, 4.3.3.1.

3.1.22 PITAS POINT (Santa Cunegundis, Ranchería volante, etc.).
Houses in 1769: Crespi: "Some 8 or 10 huts," "some well-built grass huts." Portolá: 8 houses. Font in 1776 characterizes Los Pitos (rather indirectly, to be sure) as "a very small village of four little huts and without people" Bolton 1931:249). The Longinos itinerary of 1792 lists Los Pitos as a heathen village, or villages (Simpson 1961:76)—implausibly, in view of the silence of mission records, unless indeed, as Landberg thinks, it was a seasonal settlement. Mission records: MBV B589, D134, June 15, 1791, a woman from Sucu baptized en al parage de Misnagua alias los pitos.¹⁴ Pico-Henshaw give no equivalent for this native name; their Los pitos is Ch,wayec : Ts'wai'-yök.

Figure 3. Compiled sketch of the Rincon

A—A, site of the historical "Šukuw" (3.1.21).
 B—B and C—C, other archaeological sites.

Principal source is Coast Survey topographic register 1127, MS at U.S. Coast and Geodetic Survey, Washington, D.C. (scale 833 ft. = 1 in.). Modern highway and railway are approximately supplied from U.S. Geological Survey (scale 2000 ft. = 1 in.). Archaeological sites after Weir 1950 (scale 2000 ft. = 1 in.), and verbal descriptions by Rogers 1929.

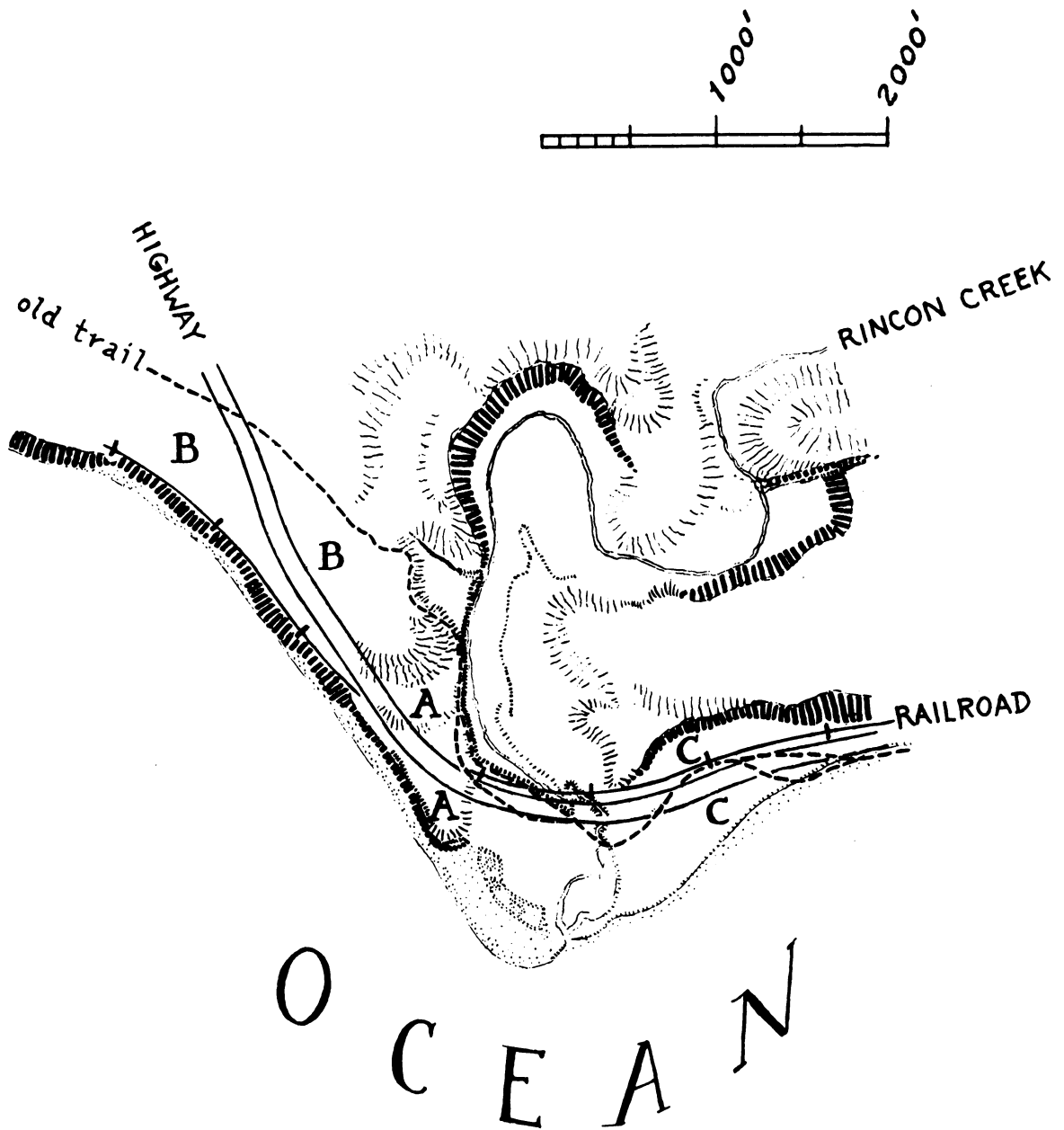


Figure 3

3.1.23 SAN BUENAVENTURA (Assumpta, Asunción). An extraordinary number of native place names for the present city of Ventura is given by the late traditions (Pico-Henshaw and Henshaw's List B; Henley from Valenzuela in Blackburn 1963a). Particular stress seems to be placed on a settlement remembered as "Mitskanaxan" (cf. also Pinart in Heizer 1952: 2, 38), "at the schoolhouse," and another listed by Pico-Henshaw as at "the little inlet," marked as a "capital" and named (Pico's spelling) "Chi-kachkach." Whatever period these reminiscences may refer to, the "first Town of the Santa Barbara Channel" as discovered in the year 1769 was most certainly the one usually spelled "Sisolop," "opposite Figueroa Street" (Pico-Henshaw), "near the wharf...on a high bank fronting the sea" (Henley), "just above the wharf, central village of Ventura rancheria" (Henshaw List B). According to the first explorers, the site was an elevated "strip [or "tongue"] of land at the edge of the sea." It can be identified with considerable confidence as the area around the lower end of Figueroa Street, between Front Street (or the freeway) and the sea, a tract formerly isolated on two sides by the inlet whose principal area is now occupied by the parking lot of the county fairgrounds. The site is mostly taken up by small residences; soil sampling might still suggest the extent of an aboriginal midden. (In the late nineteenth century there were notable mounds near the present northeast corner of Meta and Junipero streets under the old mission orchard wall, possibly the remains of another village.) Pico (in Heizer 1955:188) speaks of a short promontory called "Lul,apin" which was a ceremonial center, capital, and residence of the great chief of the vicinity; it would be tempting, if unjustified, to identify this with the narrow apex of the seaside site described above, a little over a hundred feet west of present Figueroa Street, above the ocean.

Population in 1769: Crespi makes no estimate. Costansó: "it must not have been under four hundred souls." Portolá: "about three hundred heathens." Houses: Crespi: "We counted 30 large round well-built Houses... with many people." Costansó: "we counted as many as thirty large and capacious houses." Portolá: "thirty-some houses." Canoes: Crespi: 2 or 3 were seen fishing; 10 were said to have gone to the islands; the chief said there were 15 (this last remark is added only in the final version). Portolá: three canoes were sent to fish. Mission records: MBV B7 la rancheria mas inmediata â la Mision (margin) Rancheria de Sn Buenavra.; B8 de esta Rancharia, de Solóp (margin) Rancharia, de Sn. Buenava.; B11 en la Rancharia, de esta Missn. del Seraphico Doctor San Buenava, llamada de los Gentiles Sisólop; B12 Rancharia, sita en frente de esta Missn. llamada Si Solop; B19 esta Rancharia, vezina a esta Missn. llamada Sisolóp; B23 (Serra) la Rancharia, de Si..... (torn) Asumpta immta. â esta Mision, al pnte. sue..... (torn; perhaps poniente sueste misread by Clemence); B25 (Dumetz) Sisolòp, alias la Asumpta; B30 rancharia, de la Mision, rancharia, de

Cisclop (a little doubtful) alias Sn Buenaventura; B35 (Santamaría) Sisólop; B41 (Dumetz) Cisolop alias Sn Buenaventura; B42 (Santamaría) Sisólop; D4 la Rancheria de Sisolop junta a la Playa; B50 Cisolob que es la inmediata á la Mision (also B790); B52 rancheria mas inmediata a esta Mn. llamada Sisolop (p altered from b); B55 (Santamaría) Sisólop (also B139, etc. etc.); B54 (Dumetz) Sisolòb; B71-3 Sisolob, Sisolop; B63 Sisólop, alias San Buenaventura; B81 (Dumetz) text Sisolop margin Alque altered to Alcuí; B128 Sisolopo; B163, 208, 359, etc. etc. (Dumetz) Sisolob; B143 (Cavaller) Si Solop; B183 (Dumetz) Sisolop text Sisolopo margin; B192 (Oramás) Sisolo text Sisolob margin; B911 text and margin Sisólop; B915 (Santamaría) Sisólop text, Sisosolop margin; B2021 (Señán) Chicholop text Sisolop margin. MSB B1262 (Santamaría) Sisólop. Pico-Henshaw: Shisholop : Ši'-šâ-lâp; Henshaw List B: Ši-šâ-lâp; Valenzuela-Henley: Schi scho lop. MBV B7 baptism of the son of Tetalà, chief of the village; B63 baptism of the chief, called in heathendom Tetala and Mulujóit, about 48 years old, in periculo mortis. B595 mother from Misobsno (3.1.20); B631 father from Salaguaj (3.1.18); B742 father from Mupu (SANTA PAULA); B831 mother from Misobsno; B835 father from Somes; B1249 father a native of Juám, mother from Sucu (3.1.21); B1647 father from Mishopsno, mother from Coloc (3.1.19). MSB B1299 (1801) father from Ysguagel; B1301 mother from Sisulcuí; B1470 mother from Ypúc (TRIUNFO); B1678 (1803) man aged 70 baptized at Chucu (RINCON). MBV B1347 (Aug. 12, 1801) a woman aged 60 and her children from Sisolop, her husband native of Isguagel; she is baptized "at the Place called Guenemu" (HUENEME; cf. Beeler 1966). A dozen or two children baptized at San Buenaventura from the Somes village had parents native to Sisolop.¹⁵ Goycochea, 1796: Sisolopo at San Buenaventura, chief Liguiguiyá, population 86 (heathen) souls.

3.1.24 MUGU. Pico-Henshaw: Point Mugu...the mouth of the inlet : Muwu : Mu-wu'. Though the sandspits at the mouth of the Mugu lagoon have changed little in over a century, the village site appears to have been at the hard ground to the southeast where the Los Angeles County Museum carried out excavations in 1929 and 1932 (Woodward 1930, 1933), while the coast highway that traverses the site was under construction. From two plots made available by the kindness of Dr. C. E. Rozaire, it appears that the total area of this site, extending northwest to a cemetery, was about 99,700 square feet, while the southeastern "area covered by heavy deposit" might have aggregated 50,000 square feet. Central to the latter was a small area surrounding three houses (the chiefs'?) and showing "Spanish influence." Henshaw List B: Mu'-u : Close to Hueneme. MBV B2616 bis (1808) The infant son of a San Juan Capistrano neophyte and a heathen woman from Tehuáy (?ARROYO GRANDE) was born close to the Village of Mugú, at the place called Simono, while they were traveling south.¹⁶ MSB B969, 2648 Mugu. MBV B491 Mugu; B313 Mugu, alias Sn. Jorge; B88,

1369 etc. etc. Mugú, B507, 563 etc. Mugù. MBV B88 a man about 40, native of Mugú, is father of 2 children at the Santa Clara village; MSF B211 (1799) a woman from Mugú is mother of a Guachinga (Guaspét) family; MBV B1606 mother is a native of Lisicchi (3.1.26); B1675 father from Lisicchi; B1721 father from Mastéc; B1742 a man with two wives, in 1803; B1522 Guatahichét, native of Mugú and Chief of the Village, apparently 45 years of age. See also 2.2.4, 4.2.3, 4.3.2, 4.3.3.4.

3.1.25 GUADALASCA. The mission-record village of "Sumwawáwa" is here identified with Pico-Henshaw's Shuwalajsho : Šu'-wa-la-šú southeast of Point Mugu at the "Cañada de los alizos," later translated by Henshaw as "coast at the end of Sycamore Canyon," that is, Big Sycamore Canyon. The name given by Pico must then be identical with that of the Guadaluasca land grant, while the phonetic implausibility of the identification with the mission-record name is at least no greater.¹⁷

Mission records: MBV B1686, 1913 etc. etc. Sumuahuahua; B1823 Sumoagua. B1699 mother is from Sumò (3.1.28); B1763 mother from Lisicchi (3.1.26); B1913 father from Quimishág (QUIMISA); B1968 wife from Lisicchi; B2127 mother a native of Ipúc (TRIUNFO); B2132 father from Mugu, living at Sumuahuahua, and mother from Lisicchi; B2133 mother from Sapue (CONEJO).

3.1.26 ?ARROYO SEQUIT. A Canaleño site at Arroyo Sequit has been described by Curtis (1959) as inhabited in the mission period, from the trade beads found there. An area between 215,000 and 279,000 square feet is suggested (*ibid*, plot, p. 3; mention of probable original dimensions, p. 118). The "Lisikší" of the mission books corresponds sufficiently in name and in all other clues (positive and negative) for the identification to be as good as certain. Lachusa Canyon and Lechuza Point, two and four miles to the southeast, may be Spanish folk-etymological renderings of the same Indian name.

Mission records: MBV B258 (1787) Lisixi; B358, 376, etc. (Dumetz) Lisipsí; B351 (Santamaría) margin Lisicse, text Lisécsi; B532 etc. etc. Lisicsi; B1559 etc. Lisicchi; B1675 etc. Lisicchi. MSF B2227 (1816) Disicsi en la playa, wife of a Malibu man. MBV B723 father from Sumo (3.1.28); B1559 wife of a man at Sespe; B1606 a woman living at Mugu; B1675 father of a child at Mugu; B1702 father of infant at Sumo, his wife from Chicagueyetsh; B1705 child born at Sumo of a Lojostogni (3.1.27) mother, the father having other children by another woman at Lisicchi; B2367 mother from Mugu. For other relationships see 3.1.25. MBV B258 a man's name: esto eyós; yet. See also 4.2.3 and 4.3.3.4.

3.1.27 "Lojostojni." Pico-Henshaw locate Lojostojni : Lo-hâs-tâ-hšni at "the third hollow," but whether beyond Point Mugu or beyond Big Sycamore Canyon seems unclear, and, since the next name mentioned is Malibu, a place

as far southeast as Solstice Canyon might conceivably be meant. However, at the third small canyon beyond Big Sycamore is the Deer Creek site, a small Canaleño mound partly destroyed by highway construction (Wissler 1958). The indirect evidence of the mission records rather suggests a location between Sequit and Zuma Canyons, but the question would presumably be settled if European contact material should be found at Deer Creek.

MBV B1663-4, etc., Lojostogni; B1956 Lojostojni; MSF B1516-7 Losostogni. MBV B1705 wife of a Lisichi man, their child born at Sumó; B1763 father from Sapue (CONEJO); B1747 father from Umalibo; B1760 mother from Umalibo; B1963 father from Yegehue; B1888 father of Umalibo child; B1706 father of Cayegues (CALLEGUAS) family.

3.1.28 ?ZUMA CREEK. A site at the edge of the bluff has been excavated (Peck 1955), but is not thought to be recent; the area plotted was about 15,700 square feet.

Mission records: MBV B723 (1793), MSB B2973, MSF B1539 Sumo; MBV B1523 Sumó, alias Sn Juan Bautista; MSF 1541, MBV B regularly Sumó, Sumò; MSF B2009 (1812) Rancho de Zumo en la playa. MBV B2086 Juyanachét, infant son of Amaha from Lisicchi and of Alicsayenahuan. For other relationships outside the village see under 3.1.25, 3.1.26, 3.1.27, 3.1.29. MBV B2135, 2142, 2240, 2242 a man's name : Acriuté, Acriuté.

3.1.29 MALIBU. The probable site is said to be still visible at Malibu Beach. MSB B1788-9 (1801) Jumaliguo on the other side of San Buenaventura; MBV B99 (1785) Malivo; B156-7 etc. etc., MSF B973 (Dumetz) Umalibo; MBV B464 Umalíbo (accent a little uncertain); MSF B1095, 976, 967 Humalibo (Dumetz); B756, 1279, 1381 etc. Humaliu; B824 Oumaliu; B1000-1 Omaliu; B825, 844 Umaliu; B1542-3 Humaligo; B1829 (1811 A.D.) Humaligo en la Playa. Valenzuela-Henley (Blackburn 1963a:155), male-wú; Pico-Henshaw, Humaliwo : Hu-ma'-li-wu. Beeler (1957) gives, from a contemporary Santa Barbara informant, malíwu, and suggests as etymology the meaning '(the surf) sounds loudly all the time,' with prefix hu- 'over there.' MSF B1379 (1805) Chapray, M33, chief of the village. MBV B1698 (1803) Ayahichèt's wife is from Sapué (CONEJO); B1701 a woman living at Sumo; B1707 Suluyehue F7 or 8 is daughter of Pamasiaminát of Sumó and Alutalieulelene of Umalibo (who have grown daughters born at Sumó, one of whom lives there—B2088, 2153, 2155; he is also father of a child born at Lisicsi—B723). B1726 a woman living at Sumó. B1754 a woman from Mugú. B1836, 2163, 2212 a woman with family at Sapue (CONEJO). B1884, 2039, 2044 woman from Talopop (VIRGENES). B1869 Dec. 9, 1803, Bartolomé Miguel Ortego, residing at the place called Talopóp, notified by the heathens went to the Village of Umalibo, where he baptized a child of eight days born in danger of death, daughter of Saplav native of the Island of Juyà [CATALINA], and of Siliyenahuan native of

Umalibo. MBV B1746, 1848, 1853, 2042, 2070, 2098, 2175, 2188, 2194, 2215, 2216, 2219, 2250: Gualamenahuan F55 of Sumo is the maternal half-sister of Acslahuit M53 of Sumo, who is paternal half-brother of Itumuchu M25 of Ipuc (TRIUNFO), who is maternal half-brother of Catché M35 of Ipuc, who through his father Eduardo Jutchu is half-brother of Yumisúnu M40, Alulgualienahuan F28, and another child, all born at Umalibo; Catché's children seem to include Aluluyehue of Sapue and Alulupiehue of Sumuahuahua, by Sapuayelelene from Sapue, whose other children include (by Aoriuto of Umalibo) Chulcumiachuit M15, another child born at Umalibo, and Acriutó of Sapue, who has a wife and daughter from the latter place. No doubt the pattern of relationships went further.

Notes

1. Some examples of the difficulty, more or less at random: a village appears in Santa Ines registers under spellings ranging from "Ggp." to "Haequep"(also "Gpe" as in Map 1, "Gecp" by Zalvidea 1806, "Gegueps, Ejpe, Aeghep, Ahquep," etc.); In La Purisima books, B95 and 1395, the same man is named (with two different suffixes) "SSiliaguit" and "Gseslele"; place name identifications proposed in 3.1.25 and 3.1.26 below, which are really quite conservative, may seem startling.

2. In 3.1.5, 3.1.9, 3.1.19 below appears a sporadic [k-], apparently conditioned by dialect, but presumably morphological, not phonological. The "r" varying with "l" in the name of the Malibu chief Chapray or Saplay is clearly of Shoshonean origin (3.1.29), as presumably in another name popular thereabouts (3.1.28, 29 "Acriuto" etc.); "r" also occurs in personal names from the Cuyama area. Usual graphic confusions include the following: (a) of Spanish origin, "s, ss, ch, x, sh"; (b) this [š] alternating or combined with Spanish velars [x], in at least some cases; (c) in some cases, confusion of either [x] or [š] with "l" or in combination with it; (d) accompanying some cases of (b) and (c) and perhaps other Spanish consonants, sporadic indications of palatalization or labiovelarization ("i, y" or [w], the [š] spellings usually with the front-vowel symbols and [x] with the back vowels), imperfectly distinct from each other; (e) "m" with [w] in some cases (thus "Huisap" and "miasap," "Sjcaya" and "Suiguaya" in Map 1 may actually be only two villages); (f) in other cases, "m" with "p" (cf. 3.1.6 "Onopgio," 3.1.20 "Pisopsno," and with the latter perhaps a sixteenth century spelling with "B-" cited 3.1.21); (g) perhaps some "n" with "m"; (h) "p, t, c, q" when used as overdifferentiated graphs for a presumable glottal catch; (i) perhaps some "l" with "n" on the islands. Vowels: some "i" with "e"; some "e" with "o" and "u"; some "u" with "i"; some "o" with "u" (with no noticeable overlapping). A minimum vowel scheme consistent with all the older evidence might have binary choices in height, tongue-fronting and rounding (eight

phonemes). It is likely that Payeras' diacritics (see just below) stand for some of these features. In Henshaw's phonetic spellings given below \check{s} is substituted for his "c"; his "â" is equivalent to [b].

3. "Brought Gele around by a sack of wheat, and gave him 17\$ in beads for two Indian boats he is going to buy. He to pay down the rest. February 6, 1814." Of the chiefs listed, Ayuyunatset, M40, an isleño, is baptismal entry 951 (1816 A.D.) at Mission Santa Ines; SSetey or Setey, M50, chief of the SSiucssiu village, was baptized with his wife and son in the same year, MSI B850, 891-2. A chief of Cheaumen or Ichaumen in 1815 was Alaya, M22. The word cayuco is perhaps not connected with "kayak."

4. His description of the location would be unintelligible, except that the reference to the old Lompoc or Sudden Landing pier is unmistakable.

5. Wrongly printed by Engelhardt 1923:449 as 30.

6. Gudde (1960), under Tajiguas, compares a reported Santa Ines Indian plant name, spelled tayiyas in a Bancroft transcript; in the original document it looks like Tayujas; and Engelhardt (1932a:10) prints it so, while in the Pinart word-list (Heizer 1952:54) x'tayux'as means "islay." A phonetic identification with Tajiguas Creek is still not ruled out (see 3.0.2 note above).

7. Orr's alternate suggestion (1943b:9) of Tecolotito Canyon is no longer tenable in the light of the new records.

8. This is presumably the source of a tradition, recorded 115 years later, that at the approach of the first Spaniard, the Dos Pueblos Indians rushed out of their temascal and killed him with arrows, not before he had mortally wounded one of them with his lance (Yates 1891:373). The fight certainly took place at the northwestern village, up on the tableland. The insistence on entrenched sweathouses is interesting in view of archaeological findings (see fig. 1).

9. "Achililiguo, Achichiliguo" in MSB B2857, 3000 (1804). The other villages mentioned can be found on Map 1.

10. This is clearly the word that should be supplied.

11. This name itself might mean "hill" or "mound."

12. On this chief, who was said in early official correspondence to have effective influence over thirteen villages, see especially Geiger

(1965:14, 253, also 8, 29, 31). On June 28, 1785, Commandant Goycochea of Santa Barbara Presidio reported that "the heathens of the Village here: had slain "the Little Chief [Capitan Chico] (it appears) of the Montecito, between the Lake here, and the Inlet [Estero], as he was going homeward"—because they blamed him for the death of the chief of Najalayegua, "son of the old Chief of this village." (Bancroft Library transcript, Archivo de California, Provincial State Papers 5:157.)

"In August 1797, 300 natives near the presidio were given over to Lasuen for baptism on condition of not leaving their rancheria" (Bancroft 1884: 672 note). Only the San Joaquin town shows a great increase in baptisms for 1797-98, but the number quoted is certainly impossibly large for that town alone (see also under 5.2, and references to the unsuccessful new plan of conversions in Kenneally 1965). There is no indication that this village existed after 1803.

13. Mission Santa Barbara was then supposed to be founded here. See Bancroft 1884:422 note; Geiger 1965:25.

14. This may therefore have been a much larger town in 1542: "Misinagua" is listed following "Quelqueme" (??Hueneme), and preceding "Misesopano" (Carpinteria), "Elquis," "Coloc" (Paredon), "Mugu," and "Xagua" (?Montecito). (For example see Bolton 1908:26.)

15. In 1795, six heathens from Somes joined with two Christians of San Buenaventura in an attack on Dos Pueblos or some of its inhabitants, on the grounds that a Christian from there had killed a woman. Two Dos Pueblos heathens were killed by one of the Christians in the attack (Bancroft Library, Archivo de California, Prov. St. Pap. 14:35, 37).

16. Cf. Pico's Si-mo mo "north of the inlet." Valenzuela-Henley (Blackburn 1963a:142, 146): "The Asnona of Mowu (mowu is the name for playa, or sea shore, where these Indians lived) spoke a dialect akin to those settled at Ventura and along the Santa Clara River...Mu wuhis—the name for sea shore...si-múh-wo sea water." Kroeber (1910), San Buenaventura "lake" simuwu; Pinart (Heizer 1952) San Buenaventura "sea" simuo, "shore" simuo, Mupu "sea" simuo. The meanings of the two place names are obviously connected, and even if the forms are different otherwise than dialectally, the relationship is very obscure; perhaps "Simomo" meant "sea inlet."

17. Gudde (1960) s.v. "Guadalasca," gives also "Guadalaesa": are both therefore miscopyings of *Guadalacsa, (ɣ) waa la ksa? In terms of the note to 3.0.2 above, all the spellings could easily be supposed to go back to something like *xw-blwɔxw-.

4. COMPARISONS, INTERPOLATION AND EXTRAPOLATION

4.0 Measures of Population.

4.0.1 Early estimates. There are two principal sources of data on the town populations which are the chief objects of investigation here as the parameter upon which all other measurable features were presumably dependent (but see under 4.3.1 below). The first sort of information is the direct estimates found in early historical documents, principally from the years 1769-70, and entered in section 3 above. These estimates are rough, frequently vague, and not seldom at variance with each other, but such as they are, they can easily be compared with other information by methods described and applied below. To anticipate: the comparisons show that the various types of information are generally consistent, and therefore that the early explorers' estimates are good relative measures of the size and importance of the towns. The question remains whether they are absolute measures—in other words, whether the explorers under- or over-estimated the native populations by some relatively constant factors. Thus Cook and Heizer (1965:20), after favorably assessing the explorers' reliability and experience, nonetheless come to the conclusion that women, infants, and fishermen were partly omitted from the estimates; therefore they increase the numbers by a quarter for the purpose of their calculations. On the other hand, another recent study (Landberg 1965:97) suggests that the estimates might well have been too great because of Indians attracted to the villages by the Spaniards' presence. These objections might simply be allowed to cancel each other out, but we may turn briefly to the original evidence.

In the original texts of the Crespi journals (see 5.2 below) the estimates are very often accompanied by the careful specification of young and old; men, women, and children; or even more fully, boy children, girl children, and infants in arms (niños, niñas, de pecho). In a few cases the writer is careful to mention that some of these sex-age combinations were present or absent, for reasons which he gives. It must be concluded that we are at the mercy of his judgment in this respect, but that his judgment was apparently careful. It is true that in April 1770, the town at San Buenaventura was empty of all except perhaps ten old men and women, everyone else having gone to the islands in canoes. At the Rincon, for the same reason, only women were found in the houses.¹ But in 1769, when the estimates for these and other villages were made, most of the canoes were fishing near the shore and returned while the Spaniards were still camped; the excep-

¹ See p. 80 for end notes.

tion was the San Buenaventura town which, nevertheless, was given a high estimate of population. In this connection, and that of the possibility of strangers among the estimated populations, can be mentioned the fact that at San Buenaventura (Assumpta) and Santa Barbara (San Joaquín) the explorers were introduced to "several Chiefs and many heathens they said had come from the Islands to see us"—ten canoes being said to have gone from the former town to bring them over. The lesson I would prefer to draw from these details is, again, that it is necessary to trust the judgment of those who compiled these records if the data are to be used at all. Allowance for a population swollen by unrecognized strangers might however be made in the one case of San Buenaventura, which in later records shows unusually extensive family connections with a large inland town (see 3.1.23).² All this is not to say that the estimates as they are given to us are perfectly satisfactory. Particularly in the case of the three large towns just mentioned, which were among the first encountered, the explorers were often at a loss to judge (see 3.1.21 for an expressed reason) and their individual estimates are correspondingly divergent. A possible independent confirmation of the overall validity as an absolute measure is dealt with in 4.3.3.2 below.³

4.0.2 Baptisms. The second principal source of information about the native population is found in the baptismal records of the Spanish missions from the year 1782 onwards. Their use (as by Cook 1943; see 5.2 below) poses extensive problems. Against the validity of the total number of baptisms per village as a measure of absolute or even relative size, might be urged the fact that the missions of the Channel were founded only after the natives had been exposed to Europeans and European diseases for thirteen to nineteen disastrous years—just how disastrous will be suggested below. Furthermore, baptisms from most of the shore towns took place over a further period of fifteen to twenty-five years, and those from the villages of the interior extend beyond the year 1810. Natives of the islands were converted in small and large numbers from the earliest years, on (it is sometimes said) into the decade of the 1820's, beyond the period for which the mission records have been examined for this study. Another, if minor, limitation of the present data is the occasional failure of mission records to state village of origin (see 5.2.2 below). On the other hand, there are some a priori arguments in favor of using baptismal figures as a relative index of populations. The three missions whose records are most important for the central native towns were founded within a few years' time. A tabulation of the baptismal registers shows that the evangelization of these town proceeded more or less apace, beginning among adolescents, expanding to include other age groups, and extending last of all to the older generation that had reached maturity before European contact—with women preceding the men among almost all ages.⁴ By the beginning of 1803, conversions among shoreline Chumash villages had penetrated so deeply into

the family structures that the decaying settlements, already stricken by a tremendous mortality, must have been barely inhabited; mentions still occur of the aged and of a few infants at the larger towns. The final abandonment of the villages by removal of the former recusants and hold-outs to the mission communities can be traced (with a short delay to allow for instruction) in the final wave of baptisms starting in the early-middle part of 1803 at the Chumash missions, including San Luis Obispo. Some few baptisms occur in following years, but these represent merely those few natives who, after removal to the missions, continued to resist instruction or were incapable of it. The remote coastal villages southeast of San Buenaventura are exceptional in producing their largest numbers of baptisms between about 1802 and 1808, with a very few as late as 1812 or even 1816. Certainly the organized communities on the islands must have been destroyed by the departure to the mainland of most of their inhabitants in 1815 and 1816. No considerable groups of Indians can have remained at large after these dates, for it is only the far interior, a few small mountain villages attached to Santa Barbara Mission, and the islands that continue to supply a very few heathen baptisms, mostly of adolescents. As can be seen in Map 1, the relative number of baptisms at the missions before 1820 from villages in the far interior and a number of individual settlements elsewhere, have only a very approximate relation to the populations recorded or estimated in 1805 and 1806. The relation, however, is much closer for the mainland shore, as may be seen at a glance from the figure, despite the fact that the estimates were made some decades before most of the baptisms.

4.0.3 The Population in 1796. There remains one partly independent source of information on village populations: the use of Goycochea's figures for the heathens of nineteen towns as of March 12, 1796 (see 5.2 below). These numbers cannot be used directly because of the varying rates at which former inhabitants had been removed from their aboriginal jurisdictions to the missions. It is possible, however, to determine the total number of living natives of a town in 1796 by adding the Goycochea figures to the number of those then living at the missions, this being arrived at by deducting from the baptisms administered to the middle of 1796 (to allow for candidates under instruction at the time of Goycochea's report) the number of Christian deaths recorded before March 1796. The calculation is fairly straightforward in the case of the Mission La Purisima records, in which the death entries either state the villages of origin or have sufficient cross references to the baptismal books. For the San Buenaventura registers, which have no such helps, it is very laborious (and my counts may be slightly inaccurate for a number of practical reasons). The Mission Santa Barbara books are like those of San Buenaventura in this respect (though there is a complete census-index which might be of some practical help), and I have succeeded in tabulating only the baptisms. The deaths at Santa Barbara have been estimated as 30 per cent of baptisms to 1796, or in

some cases at rates agreeing with those of adjacent villages at one or the other of the two other missions. The results of these calculations are found in Table 2 (where results reached wholly or partly by estimation are placed in parentheses). In one rather minor sense, the figures must be regarded as only a relative index of village population, even for that date. No attempt has been made to include births at the missions, since the neophytes could, and as time went on more and more often did, marry natives of other villages than their own.

4.1 Population Comparisons.

4.1.0 The following section is an attempt to discover relations and interdependencies between the available sources of information by the use of a simple graphic method presented in Cook and Heizer's study: a search for linear relationships upon log-log plots. A straight-line logarithmic-function relationship of this sort will appear when the two parameters plotted against each other change at constant, even though different, rates; a constant-percentage relation is merely a special case. The linear relationship thus obtains typically between elements that have some regular connection or mutual, or one-way, dependence (cf. Cook and Heizer 1965:2-8), and might be supposed to hold a fortiori between the relative indexes of population at slightly different dates given here. In more complex cases, the nature of the connection or possible dependence is to be discovered by cross comparison with other types of data (ibid., 3); in 4.2 below, comparisons are introduced between the established population indexes and site areas, house-counts, and canoe-counts. To anticipate, it may be said that not just one "credible numerical factor" (ibid., 18), but a number of them, are turned up by the search for this sort of simple agreement, and the temptation has been irresistible to use the relationships for cross checking, attempts to interpret individual data, and a limited amount of interpolation. The treatment, however, is not only graphic but almost wholly impressionistic; no attempt is made, for example, to plot curves parallel to calculated regression lines in order to show percentage confidence levels along with the data-points on the accompanying figures. That is, an attempt has been made to exercise an intuitive sort of caution, but no statistical assurance of the relative likelihood of the conclusions is offered. Apparent implications of the comparisons are discussed below, partly in connection with the individual figures and more fully in the more general sections that follow.

4.1.1 (Figure 4). The deduced population as of March 1796, is not independent of the baptismal records. The independently obtained Goycochea figures, however, are in most cases a very large part of the totals (as may be seen in table 2). A comparison of the 1796 populations with the total number of baptisms for each village is therefore made in Figure 4. As a minor further check, the baptisms of only those natives born before about

1771 (an arbitrary date but roughly that of the first major European contact—the figures are given in table 3) are also compared on the same axis as the total baptisms, the 1796 figures being regarded as the most independent of the three measures, though arrived at in a roundabout way. Given the uncertainties inherent in the data, and the writer's somewhat imperfect collection and collation procedures, the comparison seems to yield very clear relationships. Disregarding inconsistencies between the two curves as irrelevant, accidental, or incapable of present interpretation—any of these reasons will do—we look at the cases where the whole and partial baptismal figures systematically disagree with the general relationship with the 1796 population. The most obvious examples in the figure are the towns 7, Quemada, at present Quemada Canyon, and 9, La Nueva, at Refugio Beach, both with a relative deficiency of baptisms, and the latter showing not only the greater deficiency but (in table 3) an unusually low proportion of older converts, among whom there is an unusually high ratio of women to men. These two towns were not in existence in 1770, but were settled or resettled shortly afterward, at least partly by Indians from the interior. (See 3.1.7, 3.1.8, 3.1.9 above.) Father Estevan Tapis wrote in 1798 that many "mountain Indians" (serranos) are living at Sisuchi or Quemada and Casil or Nueva, and the baptismal records for the latter (3.1.9) agree. It could thus be expected that fewer converts would be listed as native to the towns than were actually residing there when converted. Other doubly-attested deviations of baptisms from the 1796 figures may be too small, and hence too uncertain, to justify speculation in this context. An apparent systematic excess of baptisms for 23, the San Buenaventura village, could be explained as the natural result of its being adjacent to a mission and hence more accessible for religious ministrations in emergencies. (In the records, the town is repeatedly identified with the mission village in which the converts lived; and of Goycoechea's 86 heathens, about 80 were baptized in the next seven or eight years, a proportion approached only by the San Joaquin town adjacent to Santa Barbara mission.) A deficiency in baptisms, especially of older persons, for 4, Santa Anita, may also be noted; in connection with Table 3, the figure might suggest a movement of population at about the time of the earliest historical mention of the village. In all of the cases just mentioned, similar deviations will be found in the comparisons that follow, and to that degree either the baptismal figures or the final figures for 1796 population may plausibly be considered unrepresentative—and the explanations just offered that much more likely. Whether the total baptisms or the 1796 figures are used as a basis for the following comparisons makes no difference to any of the conclusions reached below. The baptisms are chosen for display, as giving in practice a little less scatter in most cases than the 1796 figures; the partial baptismal figures for persons born before 1771 always produce much more random scatter when plotted, and are used no further.

Figure 4. Logarithmic plots of total number of baptisms (solid lines and circles, upper left) and baptisms of natives born before 1771 (broken lines, lower right) against population in 1796, for nineteen villages and three combinations. Calculated regression lines are shown.

- | | |
|--|-----------------------|
| 1. PEDERNALES | 14. MESCALITAN ISLAND |
| 2. ESPADA | 15. "Geliéc" |
| 3. COJO | 16. "Alcás" |
| 4. SANTA ANITA | 17. SAN JOAQUÍN |
| 5. BULITO | 18. MONTECITO |
| 6. GAVIOTA | 19. PAREDÓN |
| 7. QUEMADA | 20. CARPINTERÍA |
| 9. NUEVA | 21. RINCÓN |
| 11. "Miquigüi" | 23. SAN BUENAVENTURA |
| 13. "Saspilil" | |
| K. DOS PUEBLOS (11 and 12 combined) | |
| O. Goleta Slough towns (13 through 16) | |
| O ₂ . Goleta Slough towns except MESCALITAN ISLAND (13 and 15-16) | |

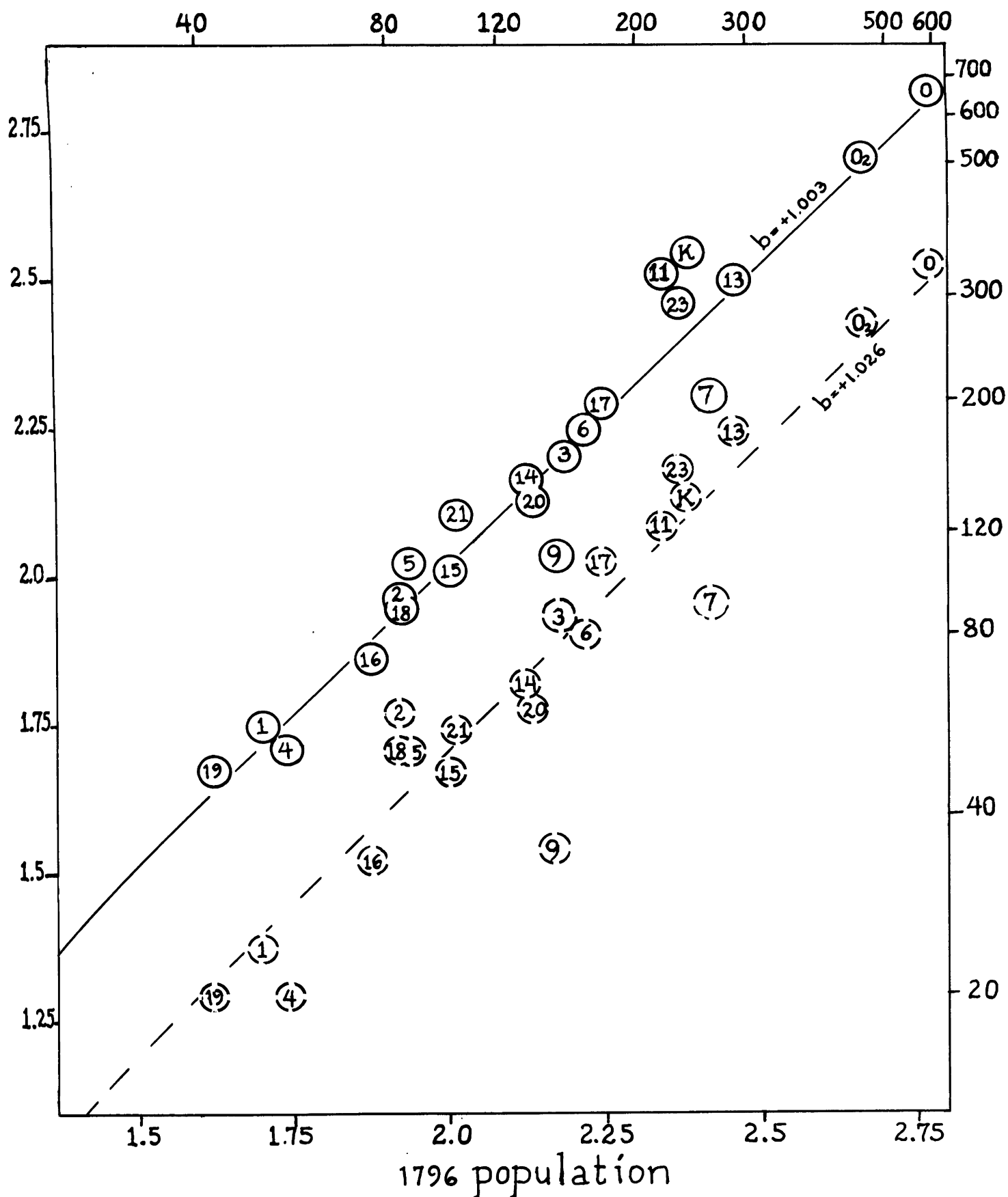


Figure 4

4.1.2 (Figure 5). The next step is to compare the measures of town size for the mission period with the direct estimates of aboriginal populations made by the explorers of 1769. Figure 5 is the result. Among twelve individual villages plotted, a close linear relationship is visible among only five (1, Pedernales; 2, Espada; 5, Bulito; 6, Gaviota; 11, Miquigüi). However, 4, Santa Anita and 23, San Buenaventura lie off the line in directions that could be predicted from the last section. (If plotted against the 1796 populations, they fit more closely though still not exactly—thus suggesting that the baptismal component of the 1796 figures may be at fault for reasons suggested above.) We may turn to the apparently true discrepancies between earlier and later data. Among these is the position of 3, the Cojo, whose baptisms (including those born before 1771, and its 1796 population as well) seem too many for a single recorded estimate of about 150 persons in 1769. Since the same village, compared to other towns, apparently also had more houses and canoes in 1769-70 than the estimate of population would suggest (see figs. 6 and 8 below), it is possible that the 1769 population was indeed higher than Gaspar de Portolá thought; a figure of 220 to 250 would bring it into line with all other measures. A similar but more detailed explanation for the highly discrepant position of 14, Mescalitan Island is offered in 4.3.3.2 below. The position of points 17, 20, and 21 above the line, on the other hand, is regarded as probably significant and justifiable. On the figure are plotted numerous experimental combinations of villages, and it is plausible that combined figures for large numbers of adjacent settlements (points A, P, S) tend to fall upon a continuation of the best-marked linear relation, though combinations (such as B, C) can be picked that do not work so well because of deviations already mentioned. Combinations are attempted here as the only way of making the comparison include several towns—between Gaviota and Dos Pueblos and between Santa Barbara and Carpinteria—that were abandoned or newly settled between 1770 and the time of the mission baptismal records. Thus for the latter group, the uncharacteristically high population in 1769-70 of 17, San Joaquin and 20, Carpinteria can be brought down to the line by assuming, as is geographically plausible, that two towns lying between them in later years were settled by some of their 1769-70 inhabitants (point X). (From figure 5, 21, the Rincon might be supposed to have participated also, but other reasons for its apparent decline after 1769 will be suggested in 4.3.3.1 below—and the position of point Y may be a little less satisfactory than point X.) Since an unknown number of Indians from the interior took part in the resettling of towns between Gaviota and Dos Pueblos (4.1.1), it is much harder in this case to choose between the logical possibilities plotted; the implausible hypotheses represented by points I and L₄ at least seem to be ruled out by their lack of fit; while an attempt to allow for the strangers would favor one of the two mutually exclusive possibilities B, G, H

(settlement from northwestern towns) and L_3 (settlement from Dos Pueblos), and the evidence of the baptismal records (under 3.1.7, 3.1.9) seems to be for the northwestern towns, Gaviota and beyond, as the source. Among all the towns, the worst individual discrepancy, not yet mentioned, is Cuyamu, one of the Dos Pueblos, which if individually plotted according to any possible interpretation of the 1769-70 estimates would fall far beyond the left-hand margin of the figure. Since an exodus from this town to the new Quemada and Nueva settlements after 1770 has just been stated to be unlikely, it can be supposed that the twin towns are insufficiently distinguished in mission books, the name Miquigüi being used for the smaller Cuyamu, as is actually the case in Coycochea's list.⁵ Table 3 certainly shows extreme inconsistency in the Cuyamu baptisms. Yet this still does not make the high estimates of 1769-70 for Dos Pueblos fit much better with the later figures. All of these suggestions, to be sure, represent after-the-fact juggling with the data rather than statistical evaluation of them. The data, however, seem to invite this treatment at exactly those points where the fit is least good. Further tests of this statement are now offered.

4.2 Other Comparisons: Houses, Canoes, Site Area.

4.2.0 The method of this section is exactly that of 4.1, with the addition of the 1769-70 estimates as a second basis of comparison. To avoid glossing over in any way the discrepancies between the population measures, the comparisons are repeated; and the repetitions are offered both as a check on the validity of their own material and as a loose but apparently sufficient indication of the relative internal and external consistency of the measures (an argument anticipated for the case of the Cojo population in the preceding section).

4.2.1 (Figures 6 and 7). Figure 6 relates the explorers' house-counts of individual villages to their estimates of populations. General linearity in the majority of the points is very evident. At first glance, it might indeed be suspected that the explorers had made their data self-consistent simply by assuming a certain number of natives to a house; but a glance at the original figures will show that they did not, at least in all but two or three cases (at Gaviota and northwest). This being the case, the highly consistent placing of 12, Cuyamu in the figure suggests that it is indeed the baptismal figures that are at fault for this village. For the majority of the villages, the figure expresses a ratio of only about five to seven persons per house. Up to twice that many are indicated, however, for the southeastern towns 17, San Joaquin; 20 Carpinteria; 23, San Buenaventura; and perhaps also for 21 Rincon, if Portolá's low house-estimate for it is accepted. On Figure 7, where the same house-counts (adding only Santa Anita and deleting Tajiguas for absence of data and Cuyamu because it is again unplottable) are compared with the total baptisms, it could be

Figure 5. Logarithmic plot of estimated population in 1769-70 (on ordinate) against total number of baptisms (on abscissa) for twelve shore towns, two other villages, and a number of experimental combinations.

1. PEDERNALES 2. ESPADA 3. COJO 4. SANTA ANITA 5. BULITO
 6. GAVIOTA 11. "Miquigüi" 14. MESCALITAN ISLAND 17. SAN JOAQUIN
 20. CARPINTERIA (the symbol is centered upon an approximate value suggested by Miguel Costansó and Juan Crespi for 1769-70; the arrow descends to the lower estimate of Gaspar de Portolá) 21. RINCON (symbol at approximate number suggested by Crespi and Costansó; lower range is suggested by Portolá)
 23. SAN BUENAVENTURA (symbol at Costansó's estimate; arrow at Portolá's) a. GRACIOSA VIEJA b. "Mupu" A. Towns from Cojo to Dos Pueblos B. Towns from Pedernales to Nueva C. Towns from Pedernales to Gaviota D. Espada to Santa Anita E. Cojo to Bulito F. Cojo to Gaviota G. Cojo to Tajiguas, against Cojo to Nueva H. Gaviota to Tajiguas, against Gaviota to Nueva H₂. Gaviota to Tajiguas, against Gaviota to Quemada I. Tajiguas against Nueva J. Dos Pueblos, against Nueva to Dos Pueblos J₂. Miquigüi, against Nueva to Miquigüi K. Dos Pueblos (symbol is centered at an estimate mentioned in 3.1.11-3.1.12 above)
 L₁. Tajiguas to Dos Pueblos, against Quemada to Dos Pueblos L₂. Tajiguas to Miquigüi, against Quemada to Miquigüi L₃. Dos Pueblos, against Quemada to Dos Pueblos L₄. Miquigüi, against Quemada to Miquigüi M. Miquigüi to Goleta Slough towns less Mescalitan Island N. Gaviota to Dos Pueblos N₂. Gaviota to Miquigüi O. Goleta Slough towns O'. See 4.3.3.3 O₂. Goleta Slough towns less Mescalitan Island P. Goleta Slough (less Mescalitan Island) to Rincon Q. San Joaquin, against San Joaquin, Montecito and Paredon R. San Joaquin, against San Joaquin plus Montecito S. San Joaquin to San Buenaventura T. Carpinteria, against Paredon plus Carpinteria T₂. Carpinteria, against Montecito, Paredon and Carpinteria U. Carpinteria plus Rincon V. Carpinteria plus Rincon, against Paredon to Rincon V₂. Carpinteria plus Rincon, against Montecito to Rincon W. Rincon to San Buenaventura X. San Joaquin to Carpinteria Y. San Joaquin to Rincon

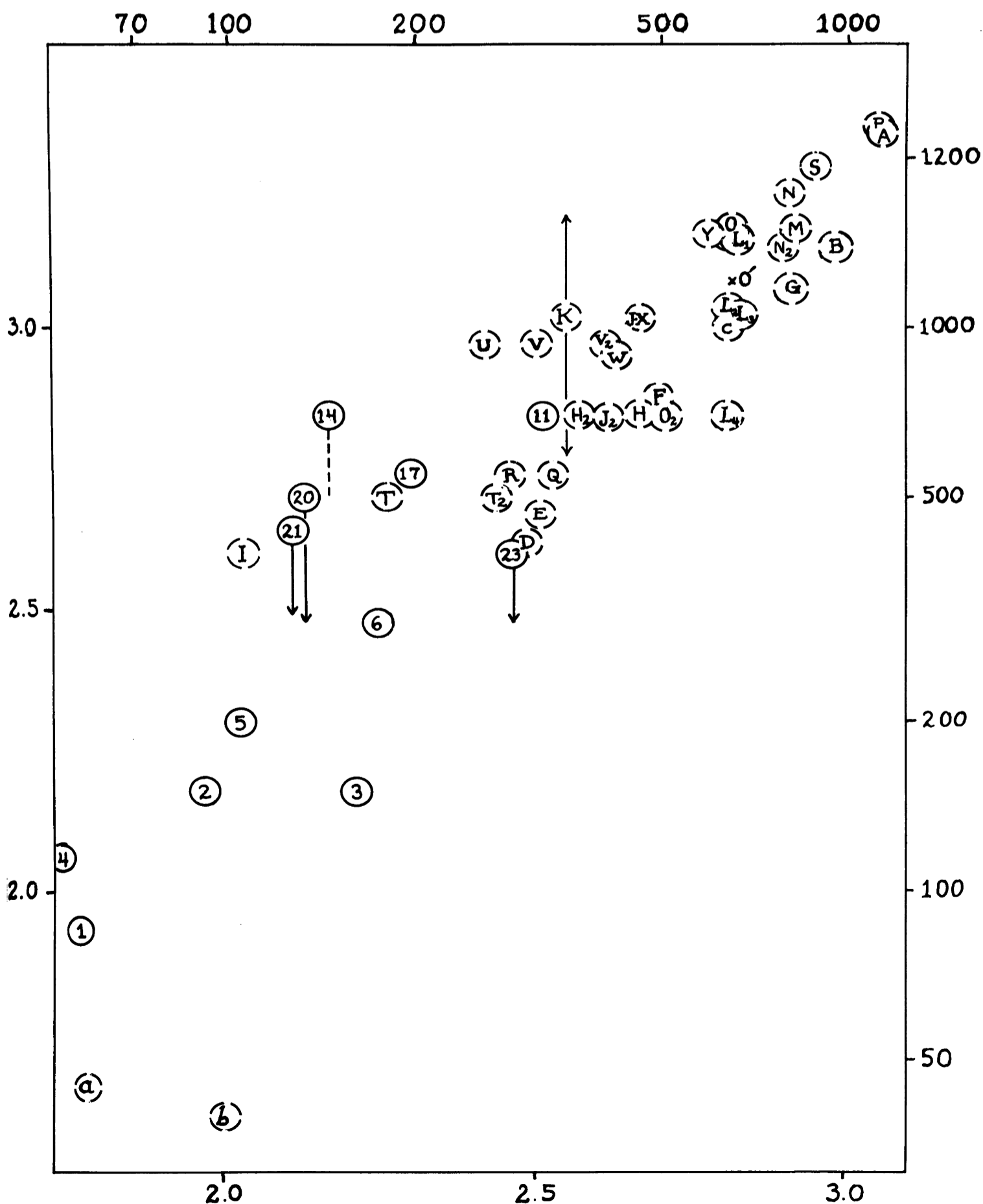


Figure 5

Figure 6. Logarithmic plot of numbers of houses in individual towns against estimated populations, from the records of 1769-70 for thirteen towns.

1. Pedernales 2. Espada 3. Cojo 5. Bulito 6. Gaviota
 8. Tajiguas (broken line extends to high estimate of population by Miguel Costansó) 11. Miqigüi 12. Cuyamu (see 3.1.11-12)
 14. Mescalitan Island (broken lines suggest possible lower ranges for either population or houses) 17. San Joaquín
 20. Carpintería 21. Rincon 23. San Buenaventura (for 20, 21 and 23 lines extend left to the low population estimates of Portolá, and right to the high numbers suggested or estimated by Crespi and Costansó) K. Dos Pueblos (3.1.11-12 together)

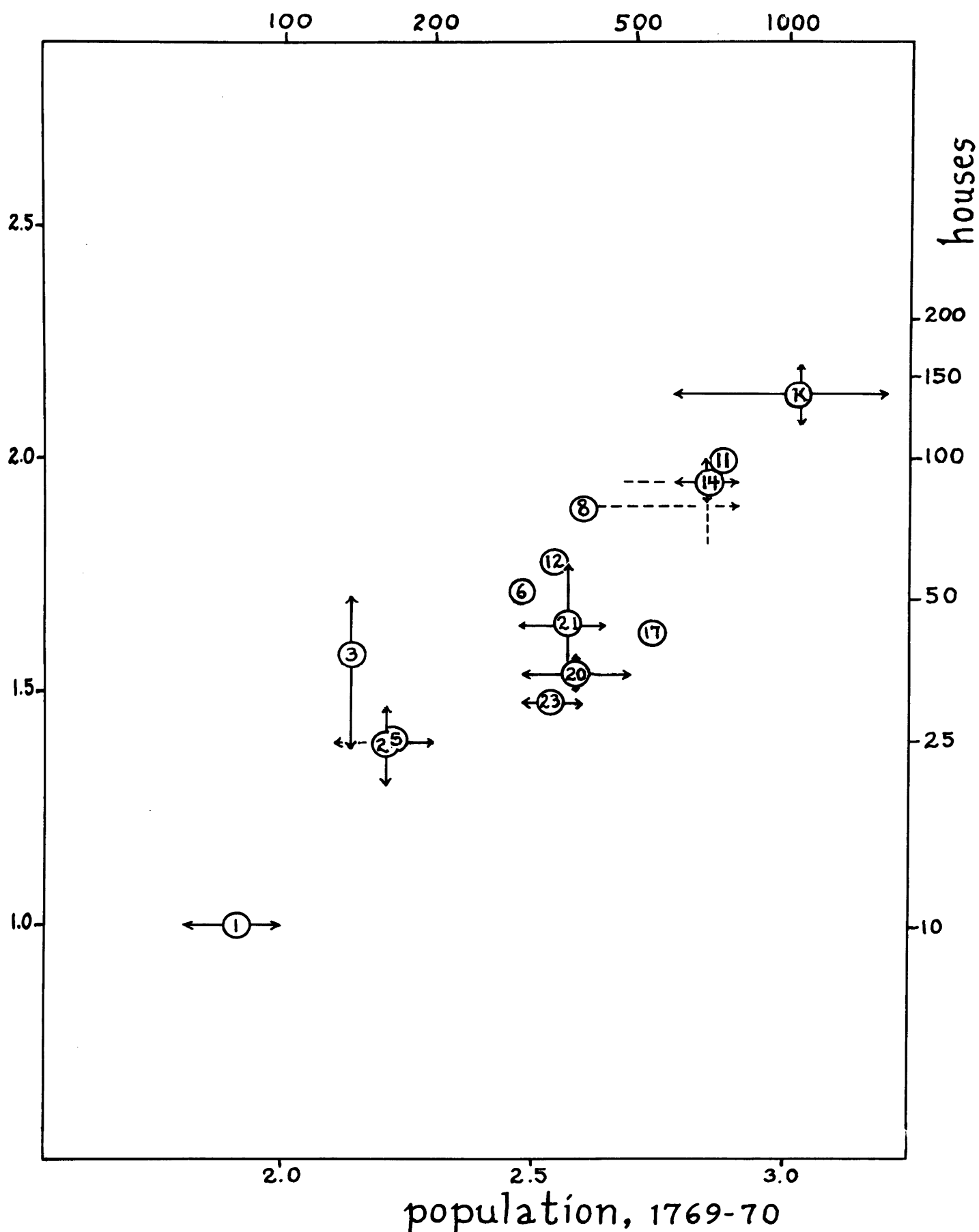


Figure 6

Figure 7. House-counts for 1769-70 plotted against totals of baptisms in the mission period, for twelve towns.

1. Pedernales 2. Espada 3. Cojo (symbol is centered between the two higher house-counts; the lowest arrow is at Costansó's low figure) 4. Santa Anita 5. Bulito 6. Gaviota 11. Miquigüi 14. Mescalitan Island 17. San Joaquín 20. Carpintería 21. Rincón (symbol at Portolá's low estimate, arrow at Crespi's high count) 23. San Buenaventura K. Dos Pueblos

House-symbols shown on Pantoja y Arriaga's large scale maps, 1782, are plotted for eight towns with X's

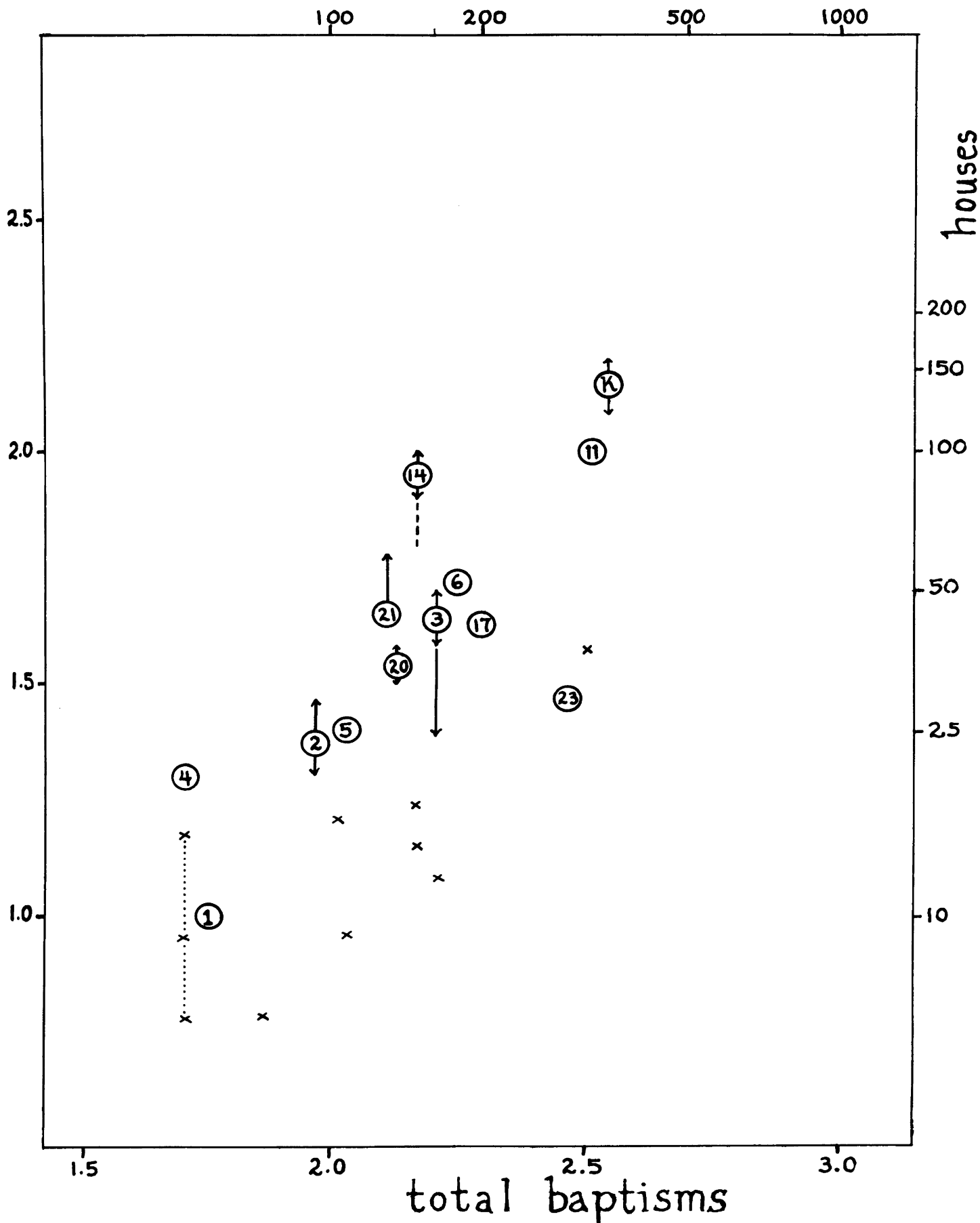


Figure 7

predicted from Figure 5 that the special placing of the southeastern towns would be destroyed, and that 4, Santa Anita; 14, Mescalitan Island; and 23, San Buenaventura would appear where they do. It is noteworthy, however, that San Joaquin and Carpinteria fall so very nearly on the general trend, here as in Figure 5, and that Rincon is again slightly deficient in total baptisms. (See 4.3.2 and 4.3.3.1 for conclusions making use of these facts.) Small marks are also introduced in Figure 7 for the number of house-symbols shown for various villages on Pantoja y Arriaga's large scale maps of 1782; probably these cannot be taken as full or accurate house-counts even for that year, but a certain similarity in slope to the 1769-70 counts is visible. Menzies' mention in 1794 of "upwards of thirty houses" in what is clearly 13, Saspilil (it may be doubted whether the figure really applied equally to its less accessible neighbor villages) combines easily with Goycoechea's count of inhabitants in 1796 to yield the usual average of about six persons per household. In Figure 6, no further special relationship between town size and average house population can be discovered with any assurance; in a footnote to 2.1 above, however, other arguments have already been advanced for such a relationship among one group of settlements. Similarly, on Figure 7 house-counts for combinations of populations could not have been compared directly with baptisms with any satisfactory results, for the points would fall scatteringly below the established curve for individual villages. That is, there is no general ratio of later baptisms to number of houses in 1769-70, and the relationship that does exist could not have been discovered on a non-logarithmic plot.

4.2.2 Canoes (figs. 8, 9). The numbers of canoes the explorers found at various towns are compared with their own estimates of population in Figure 8. In view of the smaller number of plottable data, and the large differences that are produced by even small variations in the canoe-counts, the resemblance to the earlier population and house comparisons is notable. Three of the four southeasternmost large towns again appear with an apparent excess of population, though in this case the fourth town, 23, San Buenaventura reverses its earlier excess; that is, if the reported fifteen canoes actually existed. (It should be mentioned that this figure was obtained from the village chief, not by an actual count; what the attitude of Chumash society toward patriotic exaggerations may have been, I do not know. See 4.3.3.2 below for the same problem in the case of 14, Mescalitan Island.) In the comparison with total baptisms, Figure 9, San Buenaventura is placed very close to the general line by the same canoe-count. It should be noted, however, that this position is actually very much at variance with the preceding comparisons. Otherwise, of course, Figure 9 agrees very closely indeed with expectations. A few experimental combinations of villages are plotted, merely in order to suggest a general logarithmic relation between canoes and population, though only in cases where the latter's distribution changed after 1770. Otherwise, as with house-population comparisons (and with area, below), the size of the individual village very likely imposes special relationships. Because of the uncertain

sharing of baptismal figures between the Dos Pueblos, Figure 9 hardly contradicts the suggestion that might be drawn from Figure 8, that the ten canoes reported for one or the other of the towns in fact belonged to 12, Cuyamu.

4.2.3 Area (figs. 10, 11). In this case the comparison with baptisms is given first (fig. 10); the parameter compared is the area in square feet of certain of the physical sites that could still be detected a century or two after the date of the historical descriptions—a thoroughly independent measure. Discounting the position of point 12 for reasons given previously, we are apparently faced with three separate relationships, by clearly defined geographical groupings. The enormous sites of the two northwesternmost, canoe-less towns (points 1 and 2) are certainly unrepresentative of any area actually occupied at any imaginable period, and their parallel relationship to the other curves might possibly be accidental; but it is both plausible and sufficient to take them as indicative of a different economy from that of the canoe towns—over a long time, it must be observed. The intermediate curve established on both figures by the towns lying southeast from Goleta Slough has no connection at all with the excess of 1769-70 population found for some of them in the early comparisons; while in 4.3.3.4 below a consideration will be mentioned which would make points 24 and 26, representing villages far to the southeast of those known from pre-mission records, fit this curve even more exactly. The right-hand line belongs to the towns from Dos Pueblos northwest to Point Conception, and represents some sort of extreme in land-use, either the greatest population density on a site, or the least shifting about of houses over a long period. Cook and Heizer's plotting (1965, fig. 7) of some of the present data (excluding points 1 and 2 of the far left-hand line on the present figure) produced a similar degree of spread, but, since different site-identifications were used, had to be interpreted as yielding only a single, very approximate straight-line relation. The present geographical separation into three lines of parallel slope, with very little consequent spread, still rests upon rather inhomogeneous and approximate data on sites, ranging from rough indications of areas covered with "Indian soil" to the results of careful excavation; it is hoped that the imperfections have been masked by the logarithmic method (in other words, that the data on smaller sites are more accurate than on large ones), but the use of such an indirect measure of historical fact as site-area is, must raise many questions not even touched on here. (For a few of the practical problems of interpretation, compare as examples 3.1.7, 3.1.11, 3.1.12, and 3.1.24 above.) The indications of the present section may still be confirmed, disproved, or much improved by existing unpublished data, or as a by-product of future archaeological investigations—and it is to be hoped that such comparisons will be made.

Figure 8. Number of canoes belonging to individual towns in 1769-70 plotted against explorers' estimates of population, ten cases.

3. Cojo 5. Bulito 6. Gaviota 8. Tajiguas 11. Miquigüi—
 12. Cuyamu (one estimate for either 11 or 12) 14. Mescalitan
 Island 17. San Joaquín 20. Carpintería (symbol at the
 higher population estimate, with arrow at the lower; the canoe
 being built is counted) 21. Rincón (symbol at higher suggested
 population; a canoe-count by Pedro Font in 1776 is included)
 23. San Buenaventura

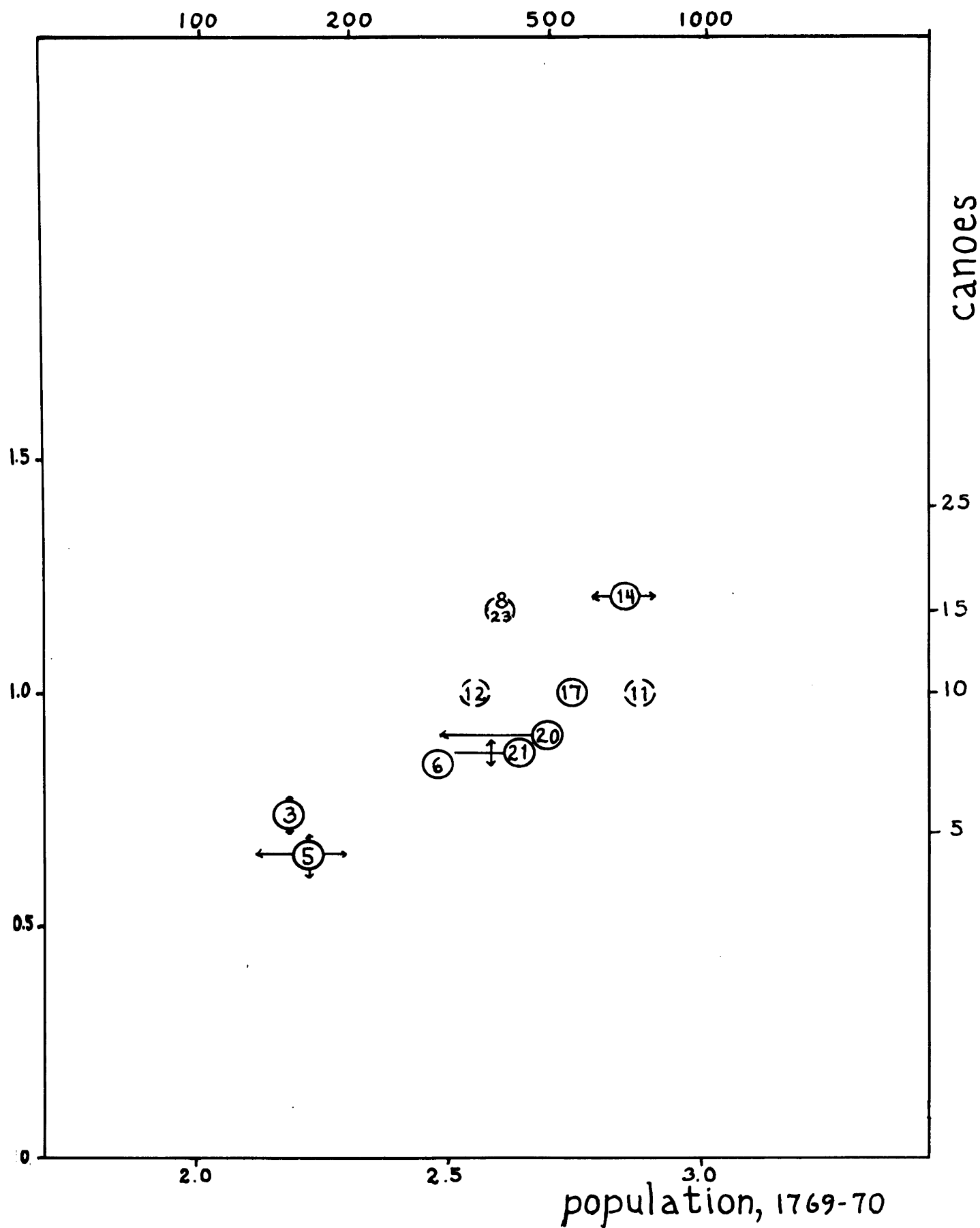


Figure 8

Figure 9. Number of canoes in 1769-70 plotted against village baptisms in the mission period, ten individual cases and some others.

3. Cojo 4. Santa Anita 5. Bulito 6. Gaviota 11, 12.
Miquigüi or Cuyamu 17. San Joaquín 20 Carpintería 21.
Rincón 23. San Buenaventura

E. Cojo, Santa Anita, and Bulito combined F. Towns from Cojo
to Gaviota R. Canoes at San Joaquín, against baptisms from
San Joaquín and Montecito S. Towns from San Joaquín to San
Buenaventura T. Canoes at Carpintería, against baptisms from
Carpintería plus Paredón X. Towns from San Joaquín to
Carpintería Y. Towns from San Joaquín to Rincón

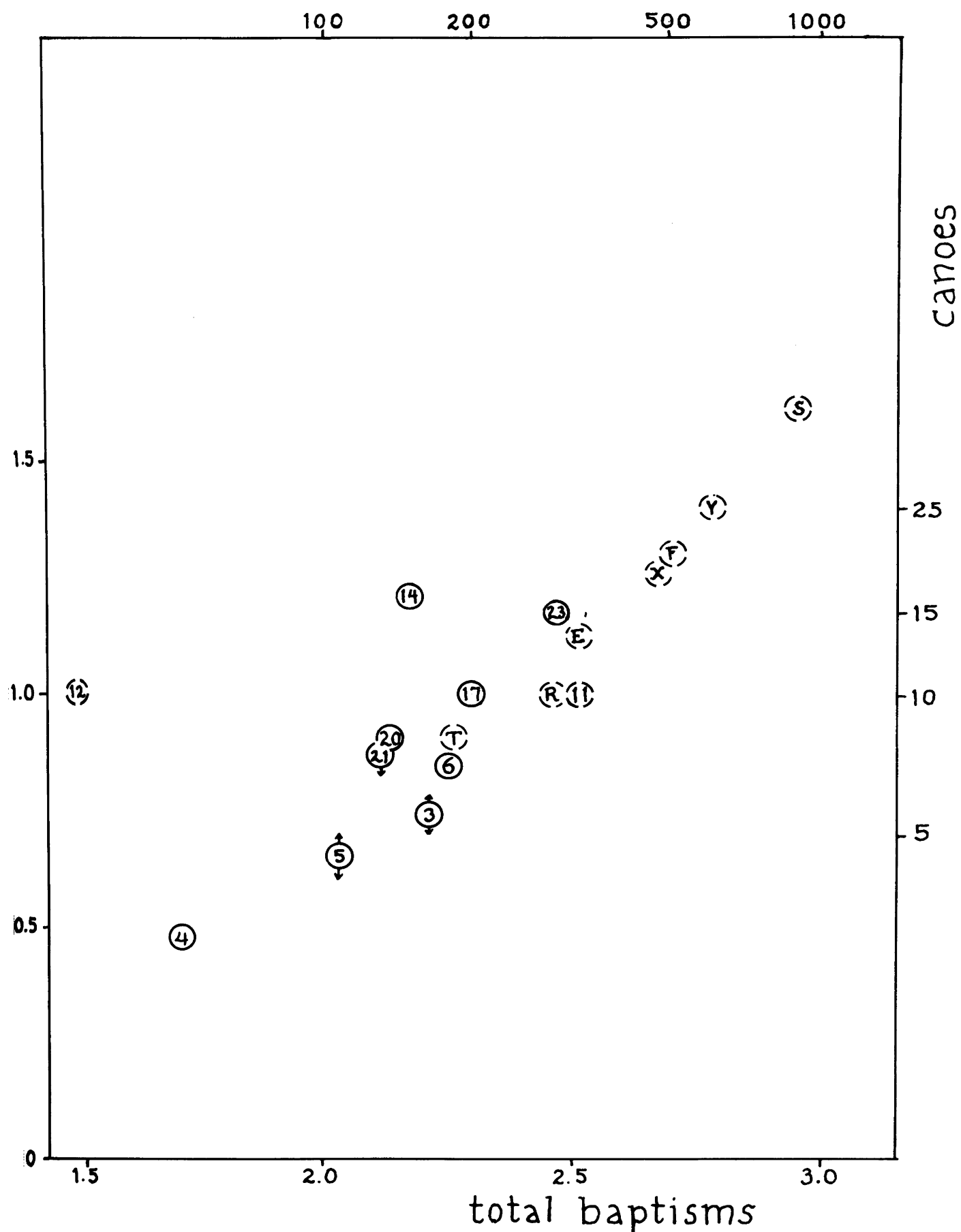


Figure 9

Figure 10. Areas in square feet of sites of towns, against baptisms of the mission period.

1. Pedernales 2. Espada 7. Quemada (symbol at supposed larger area, arrow pointing to area of site according to Rogers; see 3.1.7) 9. Nueva 11. Miquigüi 12. Cuyamu (symbol at larger area plotted by Rogers; arrow descends to area plotted by Schumacher) 14. Mescalitan Island (symbol is centered between area of three sites and area of two sites according to Orr; see 3.1.14) 19. Paredón 20. Carpintería 21. Rincón (see 3.1.21) 24. Mugu 26. Arroyo Sequit K. Dos Pueblos

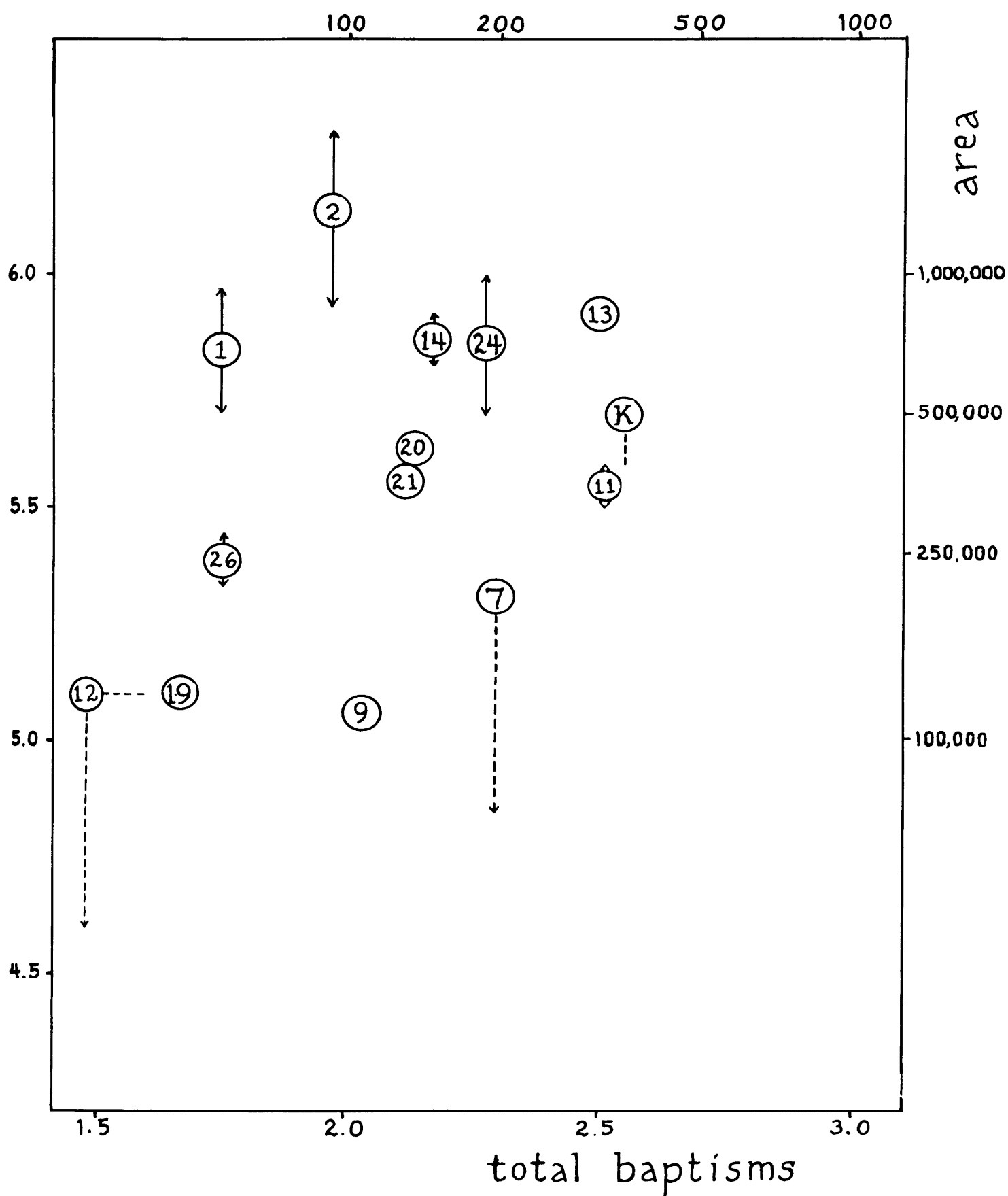


Figure 10

Figure 11. Areas in square feet of former town-sites, compared with numbers of houses in 1769-70.

1. Pedernales 2. Espada 8. Tajiguas (symbol at supposed former large area; arrow points to small area plotted by Rogers; see 3.1.8) 11. Miquigüi 12. Cuyamu (as in fig. 8) 14. Mescalitan Island (as in fig. 8) 20. Carpintería 21. Rincón K. Dos Pueblos

Small x's are at points plotted by Cook and Heizer (1965, fig. 7) from partly identical data.

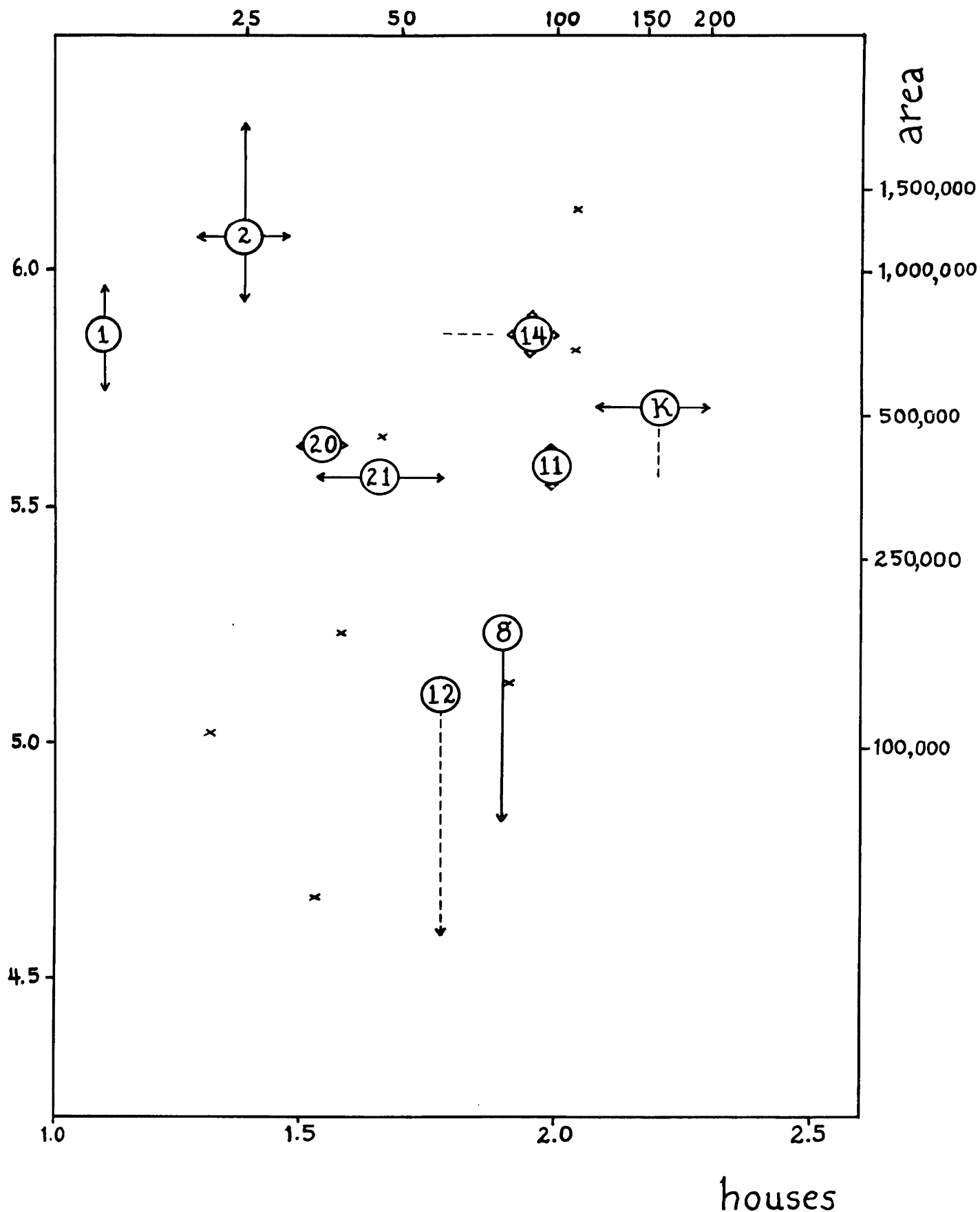


Figure 11

4.3 Considerations Affecting the Total Population

4.3.1 Abandonment of towns. The well known list of villages furnished to H. W. Henshaw by Juan Esteban Pico toward the end of the nineteenth century (Heizer 1955:194 ff.) contains 35 or 36 names for the shoreline between Point Conception and San Buenaventura, whereas the explorers of 1769-70 describe only 20 or 21 sites, of which 17 were then inhabited. Further, as Cook and Heizer point out (1965:18), there are at least 56 archaeological sites identified as "Canaleño" within only a portion of this coastal strip. Cook (1943:188-189) has used the Pico-Henshaw names shown on Kroeber's map (1925), together with partial mission baptismal statistics, in order to derive an estimate of population for the Chumash-speaking Indians. Landberg (1965:105-106) points to the Pico-Henshaw list as evidence for a larger population than the historical accounts suggest; and Cook and Heizer (1965) carry out their calculation of total population on the assumption that, as they put it, undoubtedly many villages were missed or ignored in the written account of the 1769-70 expedition. It may be categorically stated, without repeating here any of the data that are given in section 3 above or on Map 1, that to prefer the number of sites or the Pico-Henshaw list to the contemporary historical sources is no longer a tenable position—at least if one wants to use eighteenth century information at the same time. The Pico-Henshaw list further specifies, for the whole coast between Point Conception and Malibu, eight "capitals or more populous and important towns where festivals, feasts, and perhaps councils were held." Only four of these eight were inhabited, and only three of them were towns of any size in the 1770's or thereafter. In 1769-70, but apparently not much later, there were small villages at present El Capitan Beach and Pitas Point, the former site having been that of a "capital" according to Pico-Henshaw. These small settlements at former or traditional large town-sites may of course be regarded as fishing camps adjunct to nearby towns (as by Landberg 1965:89-90, who wishes to interpret them as seasonal), but it might also be possible to consider them as relics of older towns, perhaps even in the last stages of slow abandonment (3.1.10, 3.1.22). Whatever earlier period Pico's traditional list might be supposed to refer to, if indeed it can have described the situation at any single date, some such movements of population between various large, named, and inhabitable sites must have existed, if the archaeological, historical, and traditional evidences are to be reconciled. The historical evidence in combination with the archaeological, especially where resettlement took place, rather oddly, suggests that the relative site population may have been dependent either on something in the nature of the site or, perhaps, on previous family connections with it. Whether such shifts of "towns" or better between sites were more commonly peaceful or for the violent reasons discussed next is an interesting question.

4.3.2 Warfare and destruction of towns. Within a few years around 1770, the historical records give five cases of large, obviously ancient shoreline sites being either abandoned or newly occupied, or abandoned and then reoccupied, by correspondingly large fishing towns (3.1.7-9, 3.1.18-19). In four of these cases, war is expressly assigned as the cause of the relocations, and in the fifth case it can be guessed at. In 1775, when most of the relocations were apparently well under way, if not complete, a witness speaks of "manifest evidences" of the destruction caused by continual wars (Lasuén in Kenneally 1965:I:45). The most specific accounts are for the Montecito and Paredon sites, where, on August 18, 1769, the burnt ruins were said to appear to be no more than three months old. On August 19, 1769, in camp on the northwest side of present Santa Barbara, the principal chronicler of the Spanish expedition reports that their scouts had found the remains of "another big village" destroyed by war—from its location, if it was resettled, very likely the "Janayan, Hanaya" which later mission records and tradition suggest to have been a medium sized inland village (certainly no large fishing town) near the foot of Mission Canyon. At San Joaquin town the Spaniards were told by gestures what had happened. "Mountain heathens"⁶ had fallen upon the two shoreline towns, killed all the inhabitants old and young, burned the houses, and then gone on to put the same end to five other villages (alternately and perhaps more plausibly in another text, five villages in all). San Joaquin being an especially large town had saved itself by fighting back mightily. Now, all this may have a flavor of exaggeration. The wholesale slaughter does not fit the wars of the California Indians as usually described; furthermore, the journals mention seeing only one wounded man, and he was pointed out to the Spaniards as a curiosity. It has been shown above (4.1.4 ff.) that an apparently disproportionate decline in population between 1769 and 1796 (or the mission period as a whole) for the San Joaquin and Carpinteria towns could be accounted for by assuming that the intervening Montecito and Paredon were re peopled from them; but that the same 1769-70 population figures for the former two towns were unusually large when compared to the houses and canoes (also, in the case of Carpinteria, area). All this may suggest that the disproportionate 1769 populations were due to recent refugees from the abandoned towns; if so, their number might be guessed at about 500 (but as low as 300 if the lower estimate for the Carpinteria population is used, and by house-counts as high as 650). The Montecito and the Paredon were resettled very soon after their abandonment, and in 1796 Montecito was captained by a woman, a fact that might indicate a degree of social stability. On the other hand, the proportion of Montecito men among those born before 1771 and baptized at the missions is very low (table 3), and the indications are that this town did not regain its old importance, since the contemporary and modern descriptions of the site clearly suggest that it originally supported one of the largest towns in the area. A slightly more specific conclusion is possible for the Paredon, where a number of comparisons would indicate that the site

area is consistent with a 1769 population of between 80 and 125 persons (as the explorers estimated the other villages); assuming that all the Paredon natives and no others returned to the town, one can interpret the baptismal records and 1796 population as consistent with a surviving refugee population in 1769 of about 70 to 80. The loss by violence is thus a very doubtful point. The other attested case among the Channel towns of war, abandonment, and resettlement involves principally the Nueva town (3.1.9), whose older generation, in Table 3, has proportionately the lowest number of baptisms and the highest ratio of village-born women to men of any of the settlements. The result of the warfare can also be seen in Table 2, sixth column, by the exceptionally large later population compared to those born in the village and baptized, an effect shared by the neighboring Quemada town. Both towns, that is, are known to have been settled or resettled by many not born in the immediate area.

4.3.3 Decline in Population

4.3.3.1 It is a salient fact that the total number of baptisms among Channel Indians was much less than their early numbers as estimated by witnesses—less than half as many as in 1769-70 (see tables 1 and 2 for details). Some have thought that part of the Indians never entered the missions, but went on living in their native state (Lloyd 1955:51, 56 etc.; possibly also Geiger 1960; 1965:29). The hypothesis is destroyed by the consistency of the mission records (4.0.2 above) and by Goycochea's figures for the remaining heathen population in 1796, to say nothing of other considerations. Thus the difference between the 1769-70 estimates (which were certainly not systematically too large) and the deduced population for 1796 must be the result of a very high death rate, one certainly due less to native warfare than to disease or other effects of European (or colonial) contact. The decline, it appears, was quite regular among the majority of the villages—explanations have already been suggested for most of the slight discrepancies. One case that has not been explained away is the Rincon town, whose disproportionate wasting away (best visible in figs. 4, 5, 7 and 9) can hardly be due to an excess of persons in 1769 (see fig. 4, since the baptisms begin much earlier than 1796; and figs. 6 and 8). This town, much more than any other, lay directly athwart the route necessarily used by Spanish travelers. One may consider the possibility of violence as early as 1770 (4.0.1 note), the fight with Fages' party in 1772, the very small proportion of men to women among baptisms of the older generation in later years (table 3), the large number of heads of families born outside the village, and the lack of a chief in 1796. At least three deaths by native violence are recorded for 1793, an event which might conceivably be connected with the later tradition of a battle in mission times between Rincon and the San Joaquin town, near Santa Barbara, in which three were killed, two on the Rincon side (Yates

1891:374). It is hard not to regard the Rincon as a peculiarly unfortunate place, even though it apparently remained inhabited as long as any of the towns.

4.3.3.2 For the Goleta Slough towns there is one independent estimate, intermediate both in time and in size between the 1769-70 estimates and the deduced 1796 population. This group of villages, however, includes the Mescalitan Island town, which, because of its striking location, was exceptional in not having been visited by the explorers, and for which their estimates of population, houses, and canoes are internally anomalous and discrepant with other information (point 14 on figs. 5, 6, 7, 8, 9, and 11; note, on the other hand, its normal position on fig. 4 and possibly as well, fig. 10, where 1769-70 information is not used). Certain external considerations already suggest that the early estimates for this town were all too high (3.1.13-16). Interpolation from all possible comparisons (including those plotted in the figures) shows that the town would fit the generally observed relationships if the estimated population for 1769-70 had been between 220 and 400, or more specifically about 250 to 300, instead of the actual high estimates of 600 to 800. The number of houses and canoes would be reduced by the same process (though perhaps a town wholly surrounded by water might have had many canoes for its size). To allow for the suggested overestimate, the 1770 Goleta Slough population given by Crespi might be reduced by 300; that is, from 1500 down to 1200 (thus, incidentally, moving point 0 on fig. 5 from just above the general line to a little below it, point 0'). In that case, assuming as a first approximation a constant decline from 1200 population in 1769-70 down to 593 in 1796 (table 2), the calculated population in the year 1782 would have been 853. A traveler's account written in that year states that the Goleta Slough towns were commonly supposed to have between 800 and 900 persons. If the rate of decline thus established and checked is real, then in thirteen years (1769-1782) 28.3 per cent of the population died and were not replaced by births, and in the next fourteen years (1782-1796) the decline was 30.5 per cent. There was, to be sure, no particular reason for assuming in advance that the death rate was absolutely the same during this whole period; but it would be surprising if it had been higher before 1782 than afterward. The results thus seem to go very far toward verifying the general accuracy of the 1769-70 estimates, which have already been seen to be consistent as relative measures. The death rate is only very slightly less than that for most of the other shoreline towns, and is within four or five percentage points of the decline in population among converts dwelling at San Buenaventura Mission during the same fourteen year period (the death rate at Santa Barbara Mission to 1800 was slightly higher, and at Mission La Purisima considerably lower, than at San Buenaventura). The calamitous decline of California Indians upon contact with the Spaniards was usually simultaneous with their early "reduction" to life at the Spanish missions,

but it seems clear that in the cases studied here, in which the founding of the missions was delayed some time beyond the first Spanish contact, there was little to choose between the missions and life (or death) under the native polity. After 1800, to be sure, the death rate at the missions rose further still. There were then, however, few native towns left on the coast, and the corresponding death rates for them and for the heathen of the interior, where conditions were much different, have not been ascertained.

4.3.3.4 Thus, desirable though it would be to extend the methods used here in order to derive an estimate for the total Chumash-speaking population in, say, 1770, the attempt is beyond the scope of this paper. Early estimates are available for only a few villages outside the district of the large canoe towns, and even in these cases it is often hard to establish a direct connection with the baptismal records (cf. Graciosa Vieja, Mupu, and Santa Clara as discussed in section 2 above, and as shown on map 1, fig. 5, and table 3). Later population estimates for other areas lack the completeness of Goycochea's census of the shore towns, and again may have a much less clear relationship with the baptisms, which are often strung out over many years. Even in the case of the southeasternmost large shore town, for which no direct description or estimate has been found, there are difficulties in setting a plausible population. Mugu, by direct interpolation of its total baptisms, might have had a 1769 population of 350, but since most of the baptisms were very late, a complicated application of the heathen and mission death rates suggests a higher figure of at least 430.⁷ Certain kinds of consistency among the mission data for the less remote interior villages can be found in Table 3, and it is possible that a careful use of such late estimates as are available (along the lines of 4.0.3 above) might make backward extrapolation possible for certain groups of settlements—those near Santa Ines, say, or perhaps even on the islands.⁸

4.3.3.5 One consideration remains, though it remains very little but mere speculation. The records used here began with the year 1769. What if there had been earlier large changes—let us say because of diseases brought by brief European contacts in the sixteenth century, or spreading north from Mexico among native populations, or under the supposition that the destructive native wars attested for the latter part of the eighteenth century had been occurring over a longer period? The only solid piece of evidence from earlier periods is the remarkable fact that in the years 1602-3 the town at Santa Barbara is said to have had four or five times as many houses as it contained in 1769 (3.1.17). The record containing this statement is an eminently sober coast-pilot, devoted entirely to brief descriptions of landmarks, and showing no traces of exaggeration elsewhere.⁹ There is no reason to suppose that the native dwellings were smaller in the seventeenth century than in the eighteenth. The town might, of course, have been more

important at the earlier date: it is called "Xocotoc" in a record of 1542, and the same document lists a "Ciucut," said to be a "capital," which is possibly another representation of the same native name (so taken by J. P. Harrington 1928). The internal evidence, however, is rather against this identification. The same document further shows that the settlements in the fifteen miles of coast stretching southeast from Santa Barbara were the same four villages inhabited just before and just after the year 1770, and apparently no others (see 3.1.21). The document is said to indicate about thirty villages for the coast as far as Point Conception, allowing for many obvious repetitions (cf. Cook and Heizer 1965:21), whereas later records show twenty or twenty-one, but the lists of names are so confused and corrupt that it seems more reasonable to conclude, from the evidence just given, that the number of towns did not show much secular change. If so, and if the greater size of the San Joaquin town in 1602 were to be regarded as typical, one would have to reckon an original population of well over 20,000 in the principal mainland-shore Channel towns, exclusive of the settlements on the islands and in peripheral areas. Whether such a number is likely or possible, given the natural resources and native methods of food-gathering, is a question which has not been clearly answered.

4.3.4 On the total population. The burden of this study has been to show the relative, and to suggest the absolute, reliability of those records which would indicate a population of perhaps 7,000 souls on the mainland Channel shore in the third quarter of the eighteenth century. The further implication is a total population not over 15,000 for the Chumash-speaking area, including the islands and the sparsely populated hinterland (though perhaps excluding the remote and highly divergent San Luis Obispo and San Emigdio groups—if the last area was originally Chumash at all). Other approaches have given other results, and though they are given some critical consideration elsewhere (4.3.1, 5.2.2), they will be briefly described here. The lowest estimate for the total Chumash population is Kroeber's (1925:551), of 8,000 to 10,000, which some recent commentators have found unlikely or frankly incredible (e.g. Grant 1965; Landberg 1965); it was based upon the number of heathens usually evangelized by a Spanish mission and supported by his normal Californian population densities, and certainly did not allow for any greater-than-normal food resources of Channel waters fished by Canaleño canoes. The most recent studies, on the other hand, have been aiming toward very large figures indeed—in the 20,000's or higher for merely the mainland Channel coast. Some such number was in fact first suggested by Caballería y Collell (ca. 1890) for the country evangelized by Mission Santa Barbara, his approach being to multiply the number of rancheria names mentioned in the mission baptismal register by an assumed average of 150 persons per village. Cook's first estimation (1943) of the whole Chumash-speaking population, though in the same low range as Kroeber's, was reached by a method essentially quite like Caballería's, and was most importantly supported

by the total number of baptisms reported to have been administered at five missions in early years. In a later review of the same results (Cook 1964), a ratio of baptisms to aboriginal population of 2:3, derived from studies on other cases, was applied to raise the earlier figures—the total mission baptisms suggested 13,650 Chumash. As has already been mentioned, Cook and Heizer's latest approach (1965) attains a very high figure by combining early estimates of village populations with the whole number of known sites and names (the factors somewhat reduced by critical evaluation); baptismal figures are not used. The present narrow investigation of individual settlements does not actually go very far toward disproving the assumptions of the various large scale procedures that have been tried; for example, it was suggested in the last section that the population could once have been fully as high as any investigator has thought. I would only wish to insist on the remarkable congruence of the various types of surviving evidence, once each type is considered in detail upon its own terms.

Notes

1. This may have been the occasion of one of the early outrages committed by the Spanish soldiers (e.g. Bolton 1931:252); see 4.3.3.1 for the bearing.
2. But the records suggest, rather, a movement from the coast town to "Somes"; see also Table 3.
3. No attempt is made here to deal with the curious statement made by Pedro Fages in 1775 that each of the Channel towns had 600 men of age to bear arms (Priestley 1937:32; cited by Cook and Heizer 1965). If this is not a miscopying, it may be too high for another reason: it would have strengthened his case for not having founded a mission on the Channel, one of the points on which he had recently been defeated by Serra, to the detriment of his career.
4. This fact, together with the high death rate (4.3.3.2), presumably suffices to explain the very unbalanced ratio of the sexes among those baptized (table 3).
5. One of the explorers of 1769 also thought there was only one town.
6. The Spaniards of this expedition regarded the coast range as one mountain chain filling the interior. Therefore this phrase could have been used to describe any attempt by the Indians to indicate enemies from the northeast or east—whether Chumash mountaineers, Shoshoneans, or even

Mojaves. If the war was really as slaughterous as claimed (but see below), a raid from the Colorado River might seem a little more likely. Henley (in Blackburn 1963a:143) records a story about the slaughter of the Sespe Indians by aggressors from the north and east, and thinks they may have been "Mojave Apaches" (Yavapai!). Grant (1965:43) cites in this connection a still unpublished tale of fighting between a war party of "Tejon Indians" and the Mugu town, seventy being killed. In the nineteenth century the old Tejon Trail came down the mountain from the northeast, nearly in back of Montecito. On local Chumash feuds, see 3.1.12, 3.1.17 note, 3.1.21, 3.1.23 note, and 4.3.3.1.

7. Thus moving point 24 on Figure 10 slightly to the right, for a more exact fit with the suggested curve. The same consideration would give an equally encouraging result in the case of 26, Arroyo Sequit. Using the area of Mugu to interpolate directly for 1769 population also suggests 400 or 450 as the most likely figure, though here the possible spread is very wide.

8. Cf. Map 1, where the relation between baptisms and (late) estimates seems, for many of these villages, even closer than for the mainland shoreline towns. The exceptions (e.g. Santa Rosa, Tequepis, Ishguagel) are obviously the result of relative proximity to a mission with a larger number of early baptisms.

9. Its author, to be sure, is said to have been executed for falsifying his credentials as a nautical geographer, but that is a different matter.

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5.2 Unpublished Material.

5.2.1 Historical Accounts. Material from the earliest Spanish navigations has been cited from the most accessible published sources. The best descriptions of the native aspect of the country are found in the records of the first overland expedition to visit California, in 1769 and 1770. These include journals and accounts by the expedition's commander and geographer, here cited from published versions (Portolá 1909; Costansó 1910, 1911). A good deal of new information, however, is coming to light in the new texts of journals kept by Juan Crespi, O.F.M., which give the most detailed descriptions (see Brown 1965; a much shorter version was translated by Bolton 1926). Material used in this study, notably in section 2 above, is from the yet unpublished original manuscripts. Other manuscript materials by José de Cañizares and Pedro Fages (cited in 3.1.3 and 3.1.21 above) were consulted in the Bancroft Library's microfilm collections from the Mexican Archivo General de la Nación, Californias, Vol. 35; and Museo Nacional, Documentos relativos a las misiones de la Alta California, Vol. 65, fol. 179. In the same volume as the Cañizares log is found a detailed journal of examinations of the California coast in 1782 kept by Juan Pantoja y Arriaga, the best practical map maker of his generation to work in California. There are parallel journals by Pantoja's superior, Esteban José Martínez, who copies much of the same information, and by Joseph Méheu, who wrote an illiterate gallimaufrey of French and Spanish. Pantoja made large scale plots of three portions of the Santa Barbara Channel, all of which seem to have disappeared from

the Mexican archives about 1910. That of the shore under Point Conception (fig. 12) fortunately exists in a photocopy at the Bancroft Library; the plan of what is now called Goleta Slough (redrawn here in fig. 2) was saved by being reproduced in Bolton (1930:III:240-241); the map of the Santa Barbara anchorage is totally unknown to me. Pantoja also produced a small scale "Pequeña Carta" of the entire Channel, now in the possession of the Santa Barbara Historical Society, which preserves some of the missing information as well as other matter (3.1.7, 3.1.18).

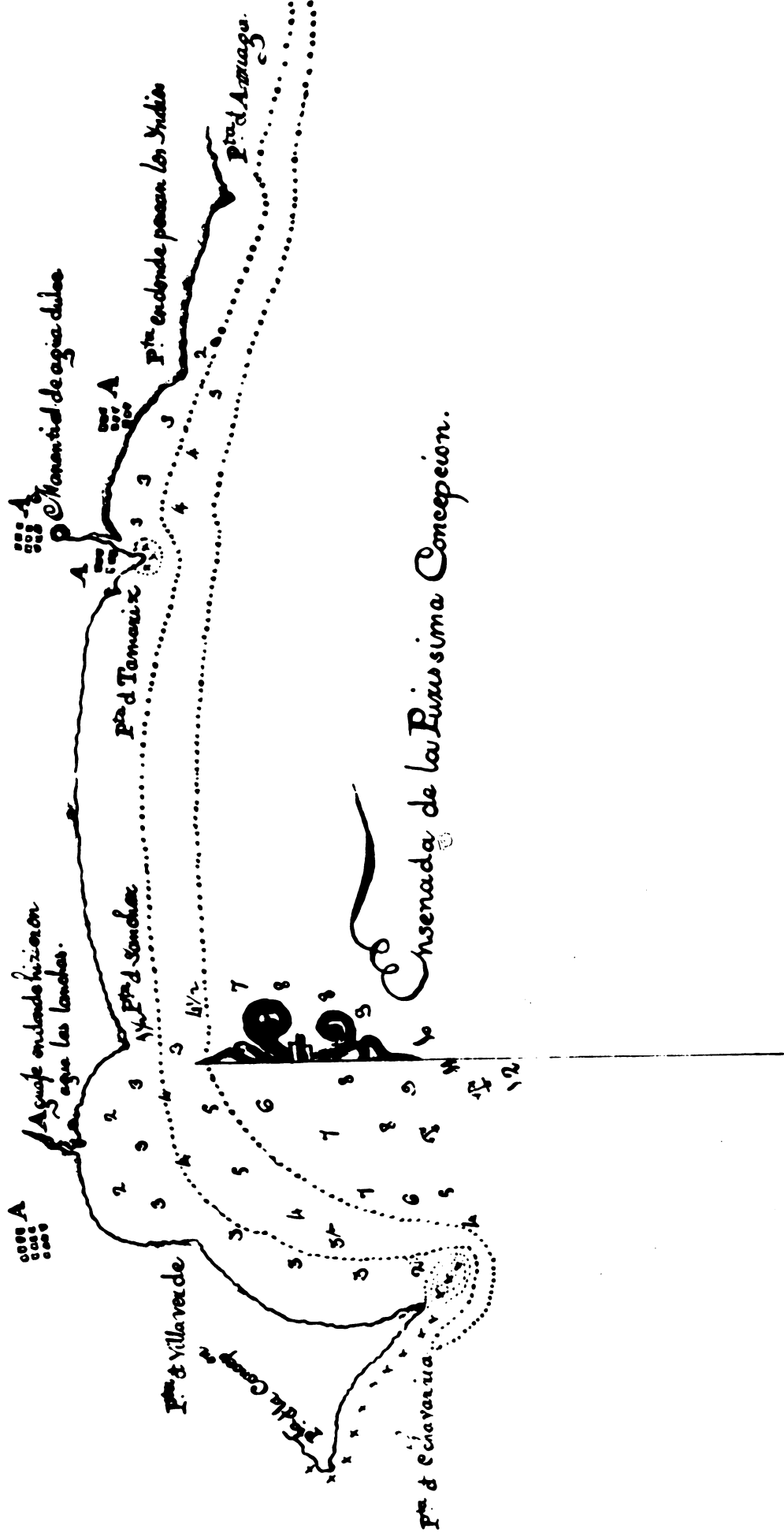
A pencil coastal view of Point Conception by the artist of the Vancouver Expedition, cited in 3.1.3, was exhibited at the Bancroft Library at the time of the acquisition of the Honeyman Collection. An important census of the principal Channel towns was compiled in 1796 by Felipe de Gocoechea, commander of the Santa Barbara presidio, as part of an unsuccessful plan to leave Indian converts in their native settlements. The contents of the document are scattered through 3.1 above, from the surviving nineteenth century copy of the lost original in the Bancroft Library transcript, Archivo de California, State Papers, Missions, Vol. 2, p. 95 of the transcript.¹ The missionary Estevan Tapís (or Tápiz) left a number of descriptions of native settlements, some of which have been cited in the text and used in Map 1. For the islands, the documents are the 1803-4 biennial report on the missions, dated Feb. 21, 1805, Mission Santa Barbara Archives, "Noticias," under date; and a letter to the governor, March 1, 1805, same location, Document 676 (old 481). The "Reconocimiento de Calahuasa," dated Oct. 23, 1798, is Document 404 (old 331); at its end is an important list of villages in the Santa Ines region.² Other material for Map 1 has been drawn from journals kept by the missionaries Zalvidea in 1806,³ and Santamaría in 1795, the originals of which are in the "Diarios" section of the Santa Barbara Mission Archives.

5.2.2 Mission Books. These are the surviving records of administration of sacraments and, secondarily, vital statistics at the Spanish missionary centers. A brief key to those cited has already been given (3.0.2 above). The greatest amount of information is found in the registers of baptisms, which ideally give a convert's heathen and Christian names, sex, apparent age, place of birth, parentage, family relationships to other Christians, and deformities, if any. Unfortunately, any of these except sex and Christian name are sometimes omitted through inadvertence, a missionary's ignorance of the native language, or the requirements of mass baptisms in later years. The registers of deaths often contain interesting geographical information (e.g. in the Mission Santa Cruz books the Soquel village can be identified with its usual name in the baptismal register

¹ See p. 93 for end notes.



Escola de 3 millas Maritimas.



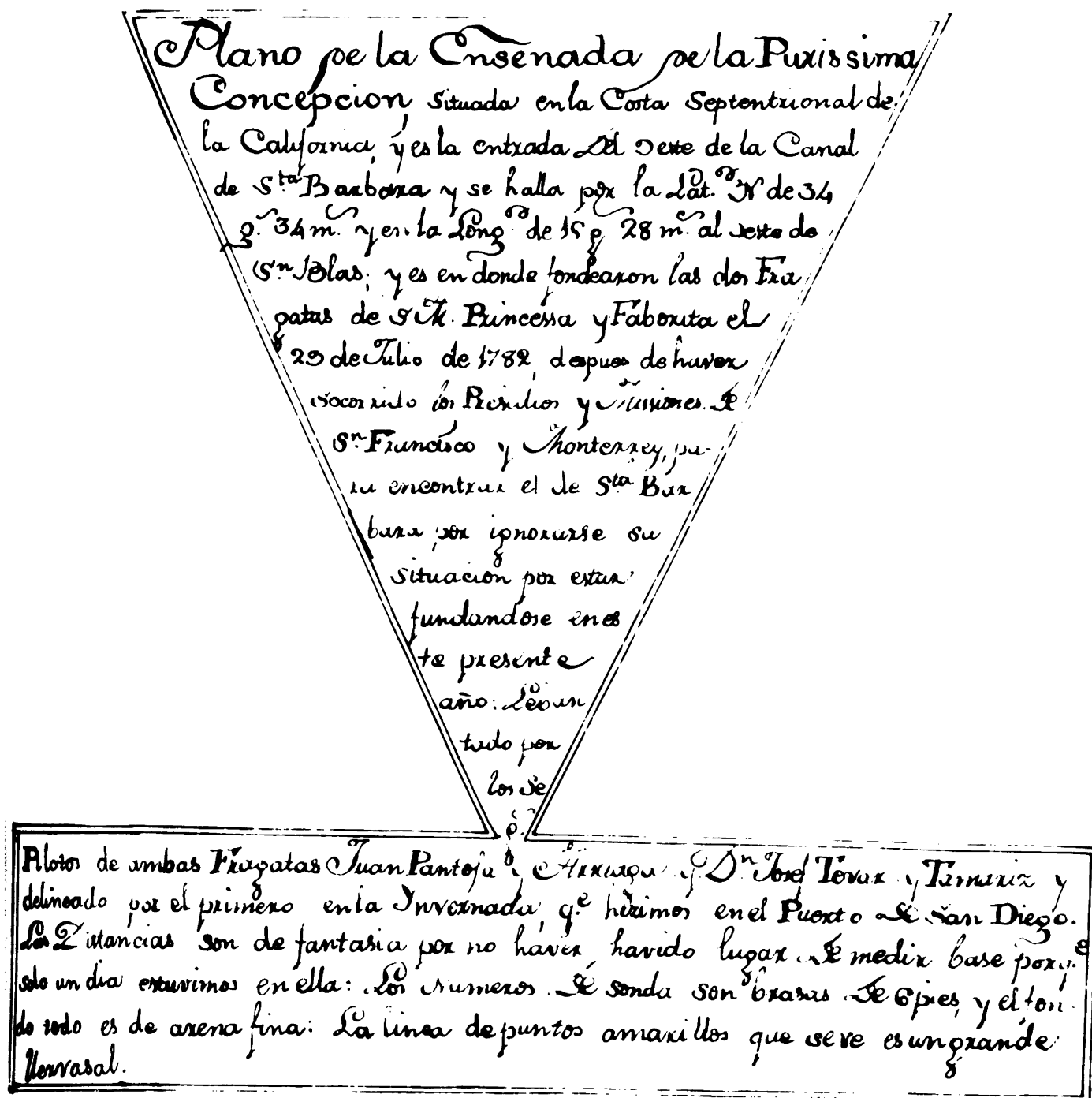


Figure 12. A Plan of the Bight of Purissima Concepcion.⁴

only in a late burial entry), especially in the case of deaths occurring away from the mission. In the absence of direct identifications, the best clue to the location of a native village is usually the number of family relationships with other rancherías. For such matters, marriage and confirmation registers are of very much less value. Rosters or rolls (padrones) of neophytes are preserved for many missions, and can be valuable for personal and place names; information in 3.1 above labeled "Geiger, from Mission Santa Barbara records" is usually taken from Father Geiger's notes from the padrón. Since the mission registers were not intended for historical or ethnographic records, their obviously important information has proved extraordinarily difficult for students to get at. The summary lists of village names attached to Engelhardt's individual mission histories are of very limited usefulness, even where they are faintly reliable. The nineteenth century copies of mission books now in the Bancroft Library, many bearing the name of Alphonse Pinart, unfortunately do not indicate their true nature, which is that of notes and extracts, not of transcripts.⁵ The use of these materials has vitiated some of S. F. Cook's treatments of the Chumash population problem (1943, 1964; see 4.3.1, 4.3.4 above); from this example and some acquaintance with the copies, I should not expect better than one-half accuracy from work so based. The most ambitious attempt by far at putting the mission books into ethnologically useful shape is the extracts prepared by Mrs. Stella Risley Clemence for C. Hart Merriam fifty years ago, of which some carbon copies have been deposited in the Bancroft Library by the Department of Anthropology, University of California, Berkeley. While most of the material for four missions (including Santa Barbara) has been published in Merriam (1955:188-225), it must regretfully be stated that this compilation is also imperfect; for example, for 34 mainland villages a total of 2,482 baptisms at Mission Santa Barbara was tabulated for the present study, the corresponding total for the same villages in the Clemence material is 1,099. For some other missions, the latter may be a little more dependable, and for ranchería names it is useful if cautiously employed.⁶ In general, because of the refractory nature of the records, if two figures for baptisms (or deaths) from a village are offered, the higher number is to be preferred. The most accurate counts for individual villages with which I am acquainted are those presented by Geiger (1960, 1965) from the Santa Barbara register. In most cases, these agree in a most reassuring way with totals from the material collected for this study (see table 1). Serious differences can, I believe, usually be attributed to my less conservative policy in identifying doubtfully-spelled village names. Tabulations have been made of baptisms by village, year, sex, and age-group (in ten year increments except for the very young and very old), and are at present in the writer's possession.

Of the mission records used, the Mission San Luis Obispo baptismal and

death registers were examined, the former only for entries after the year 1790, on microfilm, through the cooperation of the Rt. Rev. Thomas R. Culleton; the Mission La Purisima records on microfilm, through the kindness of Mr. Robert H. Becker, Acting Director of the Bancroft Library; those of Mission Santa Ines by the kindness of the Rev. John Kelly; the San Buenaventura baptismal and death registers by means of microfilm taken with the permission of the resident priest (to be deposited in the Mission Santa Barbara Archive); and the San Fernando book of baptisms (only) at the Chancery Office of the Archdiocese of Los Angeles, with the kindness of the Rev. Francis J. Weber. The Mission Santa Barbara baptismal register was used not in the original, but through a convenient, careful, and laborious longhand transcript made by the Rev. Maynard Geiger, O.F.M., as Archivist of the mission. As a point of method, it should be noted that in this last case, the material has passed through one more stage of copying, though great care has been exercised by all concerned; and in general, that material quoted here has often not been proof read by an additional reference back to the manuscripts. Summaries of parts of the material tabulated for all of the settlements shown in Map 1 will be found in the tables which follow. No serious attempt has been made in this study to present mission-book evidence on personal names: the one type of information from these records that is the most difficult to work with, but at the same time the one that offers the greatest ultimate rewards.

Notes

1. A sort of half-translation of the list is printed in Engelhardt (1923:448-449). It is theoretically possible that Engelhardt had seen the document's original before its destruction in the 1906 San Francisco fire, but none of his version's discrepancies from the Bancroft Library copy suggest so. The latter has a totaled sum of 1,783 which presumably belonged to its original, for the actual amount should, by the figures given, be 1,784. Engelhardt's version would give a total of 1,709 (80 instead of 86 at "Sisolopo," 30 instead of 99 at Gaviota), and, besides some obvious minor misspellings, also omits a total of distances ("A la mision de la Purisima pr. Camino Real/31 [leguas]"); and another league-count, in three units, with a total of 28, which may go more closely with the phrase just quoted than the figure 31.

2. Engelhardt (1923:70; 1932b:4) combines this list with a very similar later version also prepared by Tapis, in 1803, which I have not seen and which has a little additional material. The following principal corrections should be applied to the Engelhardt (1923) material, which follows the 1798 list more closely: after Aquitsumu, 8 leagues, not 7; Elcmana not Clemana, Huililicqui not Huilioqui; after Asniséhue 9 leagues and 8 houses, not 8 leagues 25 "huts."

3. Translated and annotated by Cook (1960) from the Bancroft transcript, which has altered the spelling of some names: Jonatàs, Olomosoug, Jalihuilimu, Siguicon.

4. The legend attached to the Pantoja map translates as follows: A Plan of the Bight of Purissima Concepcion situated upon the Northern Coast of California, being the Western entry of the Santa Barbara Channel and located in $34^{\circ} 34'$ North Latitude, Longitude $15^{\circ} 28'$ West of San Blas; and being where H.M.'s two Frigates Princessa and Faborita anchored the 29th of July, 1782, after aiding the Presidios and Missions at San Francisco and Monterrey, while looking to meet the Santa Barbara Presidio, whose situation, because of its being founded this year, was unknown: By the Second Pilots of both Frigates, Juan Pantoja y Arriaga and Don Josef Tover y Tamariz, and drawn by the former during our Winter stay at San Diego Harbor. The distances are guesswork, there having been no chance to measure a base since we were there only a day: Soundings are in fathoms of 6 feet, the bottom is all fine sand: The yellow dotted line shown is a large seaweed-bed.

5. However, in at least one case, that of Mission San Francisco, the Pinart copy preserves important information that was on a now missing leaf of the original record.

6. For two villages chosen at random from the MLP register, the Clemence figures are three-fourths and four-fifths of my own. White (1963: 105) mentions that the Clemence material for Mission San Juan Capistrano frustrated all attempts at statistical analysis.

TABLE 1

Total Baptisms from Twenty-six Towns at Five Spanish Missions

	MLP	MSI	MSB	MBV	MSF	Total
1. Pedernales	57					57
2. Espada	94					94
3. Cojo	158		5			163
4. Santa Anita	52					52
5. Bulito	107	2	1			110
6. Gaviota	159	2	18			179
7. Quemada	40	7	157			204
9. Nueva	1	19	88			108
11. Miquigüi	5	2	321	2		330
12. Cuyamu			30			30
13. Saspilil			316	1		317
14. Mescalitan Island			146	2		148
15. Geliec			104			104
16. Alcas			73	1		74
17. San Joaquín			198			198
18. Montecito			79	11		90
19. Paredon			42	6		48
20. Carpintería			68	68		136
21. Rincon			12	118		130
23. San Buenaventura				292		292
24. Mugu			2	186		188
25. Guadaldasca				54		54
26. Arroyo Sequit				58	1	59
27. Lojostojni				32	2	34
28. Zuma Creek			1	18	31	50
29. Malibu			2	29	81	<u>112</u>
Total						3,361

TABLE 2
Population of Towns in 1796

	Baptisms to mid- 1796	Deaths thru 1795	Per Cent Died	At Village 1796	Total Living 1796	1796 Population as per cent of Baptisms	Per cent of 1770 (est.) Population
1. Pedernales	46	8	17.4	12	50	87.7	58.8
2. Espada	78	9	11.5	12	81	89.2	55.3
3. Cojo	92	14	15.2	72	150	92.0	100.0
4. Santa Anita	36	11	30.8	30	55	105.8	47.8
5. Bulito	31	13	41.9	68	86	80.4	43.0
6. Gaviota	82	(17)*	19.1 [†]	99	(164)	(93.2)	(54.7)
7. Quemada	16	(5)	28.6 [†]	250	(261)	(132.0)	--
9. Nueva	11	(3)		142	(150)	(168.3)	--
11-12. Dos Pueblos	45	(14)	33.0 [†]	210	(241)	(67.5)	(23.2)
13-16. Goleta Slough	248	(75)		420	(593)	(92.2)	(39.5)
Saspilil	118	(35)		202	(285)	(89.9)	--
Mescalitan Island	46	(14)		101	(133)	(89.9)	(19.0)
Geliec	50	(15)		66	(101)	(97.1)	--
Alcas	34	(10)		51	(75)	(101.3)	--
17. San Joaquin	70	(21)		125	(174)	(87.9)	(31.6)
18. Montecito	35	(14)	63.6 [†]	62	(83)	(92.2)	--

19. Paredon	17	(6)		31	(42)	(87.5)	--
20. Carpinteria	55	(17)	31.6 [†]	97	(135)	(99.3)	(27.0)
21. Rincon	75	41	54.8 [†]	68	102	78.5	23.2
23. San Buenaventura	205	59	28.8	86	232	79.5	58.0
24. Mugu	25	8	32.0	--			
Ten villages at La Purisima Mission	313	35	11.2				
			Mean:				
			10.6				
Pedernales to San Buenaventura				1784	(2601)	(91.5)	(44.5)
Pedernales to Nueva					(999)	(93.7)	(71.4)

* Figures in parentheses contain estimates by death-rates

[†] From death registers of Missions La Purisima and San Buenaventura

TABLE 3
Mission Converts Born Before (approx.) 1771

	Total	Ratio Women to Men	Per cent of Total Baptisms	Per cent 1770 Est. Population
Pedernales	24	2.4	42.1	28.2
Espada	63	1.6	67.7	42.0
Cojo	87	1.6	53.4	58.0
Santa Anita	20	1.0	38.5	17.4
Bulito	52	1.5	48.1	26.0
Gaviota	82	2.2	46.4	27.3
Quemada	93	1.5	45.6	--
Nueva	35	2.9	32.4	--
Dos Pueblos	138	1.6	38.7	13.1
Miquigüi	124	1.8	37.9	16.5
Cuyamu	14	0.4	46.7	4.0
Goleta Slough	328	1.3	51.0	21.9
Saspilil	179	1.6	56.5	--
Mescalitan Is.	67	1.6	45.3	9.6
Geliec	48	1.1	46.2	--
Alcas	34	1.6	46.0	--
San Joaquin	107	1.5	54.0	19.5
Montecito	52	2.3	57.8	--
Paredon	20	1.2	41.7	--
Carpinteria	61	1.3	44.9	12.5
Rincon	56	2.1	43.1	12.7
San Buenaventura	153	1.6	52.4	38.3
Mugu	82	1.4	43.6	--
Arroyo Sequit	22	2.1	37.3	--

TABLE 3 [cont'd.]

	Total	Ratio Women to Men	Per cent of Total Baptisms	Per cent 1770 est. Population
Malibu	46	1.6	41.1	--
Conejo	30	1.7	47.6	--
Calleguas	56	1.5	45.9	--
Sespe	23	1.3	41.1	--
Santa Clara	14	1.8	43.7	7.0
Mupu	42	1.2	41.6	(105.0)
Sisar Creek	32	2.2	43.8	--
Matilija	113	1.4	47.3	--
Somes	120	2.1	55.8	--
Najalayegua	49	1.5	50.0	--
Stucu	49	1.6	45.4	--
Tequepis	83	1.4	45.6	--
Nojoqui	52	1.5	57.8	--
Santa Rosa	58	1.8	51.8	--
Graciosa Vieja	36	1.6	61.0	80.0
Graciosa Nueva	46	2.3	55.4	--