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Title

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Permalink

<https://escholarship.org/uc/item/9tz5g6f3>

Journal

Journal of California and Great Basin Anthropology, 5(2)

ISSN

0191-3557

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Publication Date

1983-07-01

Peer reviewed

Demographic Patterns in the Missions of Northern Baja California

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THE purpose of this essay is to examine basic demographic patterns in four missions in northern Baja California established after 1766 in order to formulate a model useful for explaining the dynamics of Indian depopulation in the Baja California missions and other mission groupings in northern New Spain. An examination of extant sacramental registers of baptisms and burials from San Fernando (est. 1769), Rosario (est. 1774), and Santo Domingo (est. 1775) missions shows the patterns of Indian conversion or incorporation into the mission system as related to the trend of a disappearing Indian population, and the inability of indigenous populations to reproduce in sufficient numbers to offset high mortality.¹ The detailed 1813 census of San Vicente Mission (est. 1780) enables us to examine the demographic state of one mission at a specific point in time. This study in no way attempts to challenge the findings of Meigs (1935) and Aschmann (1959) in their monographs dealing with Baja California, but merely to reinterpret old data and introduce new materials.

Scholars generally recognize that newly introduced Eurasian diseases exacted a heavy mortality on the Indians of Baja California, a population with no prior exposure to the diseases or any immunities. (Cook 1937; Meigs 1935; Aschmann 1959; Jackson 1981). This, however, is only part of the story. Eurasian populations faced similar losses from

diseases at different times, such as during the 14th-century outbreak of bubonic plague, but eventually reached an equilibrium between the contagions and recovered. Natural reproduction eventually made up the losses caused by disease. Similarly, the Indian population of central Mexico declined from an estimated 25.2 million to a mere 1.075 million between 1521 and about 1605 (Cook and Borah 1971-1979: Vol. 1: viii), but increased substantially during the late 17th and early 18th centuries as the population built up immunities to the new diseases (Gibson 1964: 138-143; Taylor 1979: 20). The general trend in Baja California, on the other hand, was a marked inability of the Indians in the missions to maintain population levels in the face of high disease-related mortality. Missionaries only maintained population levels in the missions by recruiting "gentiles" (non-Christian) Indians. Once the source of recruits dried up, however, the population of the missions inevitably declined.

DEMOGRAPHIC PATTERNS

The Franciscans and Dominicans stationed at San Fernando Mission baptized a total of 1,441 gentiles and 669 children born at the mission between 1769 and 1818, an average of 29.4 gentile baptisms and 13.7 births per year. In the first ten years of operation, 1769-1778, 1,372 gentiles received the waters of baptism and 205 children were born at the missions. Burials between 1773 and 1778 (the extant burial register begins in

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1773) reached 675. During the early years of the mission the population totaled a recorded maximum of 1,406 in 1775 (Aschmann 1959: 182)². Over the next 40 years, 1779-1818, the Dominicans recorded 60 gentile baptisms and 464 natal baptisms. Burials totaled 1,282, leaving an excess of 749 burials over baptisms (San Fernando Baptismal and Burial Registers; see Table 1).

At Rosario, over a period of 70 years, 1744-1844, the Dominicans baptized 932 gentiles and 428 mission-born children, an average of 13.3 gentile and 6.1 natal baptisms per year. During the first 21 years, 1774-1795, the missionaries recorded 1,212 baptisms, 903 gentiles (412 in the year of 1775 alone) and 309 natal baptisms. In the same years, they buried 836 people, an excess of 376 baptisms over burials. One hundred and forty-eight received the waters of baptism over the next 49 years, 119 natal baptisms as against 29 gentile baptisms. Burials from 1796 to 1822, when the register ends, totaled 365, an excess of 217 burials over baptisms (Rosario Baptismal and Burial Registers; see Table 2).

Similar conditions existed at nearby Santo Domingo Mission. In a period of 64 years, 1775-1839, the Dominicans baptized 615 gentiles and recorded 308 births, an average of 9.6 gentile and 5 natal baptisms per year. In the first 21 years of its operation, 1775-1796, 685 received baptism, 589 gentiles and 116 mission-born children. In the same period, recorded mortality reached 319, leaving an excess of 336 baptisms over burials. Over the next 42 years, Dominicans baptized a mere 46 gentiles, as well as 192 mission-born children. Burials totaled 389, leaving a negative balance of 151 burials (Santo Domingo Baptismal and Burial Registers; see Table 3).

In the three missions discussed above, the missionaries recruited and baptized a total of 2,988 gentiles and recorded 1,405 natal bap-

Table 1
INDIAN RECRUITMENT AS RELATED
TO POPULATION AT
SAN FERNANDO MISSION, 1769-1829

Year	Gentile Baptisms	Natal Baptisms	Excess of Baptisms	Excess of Burials	Population
1769	153	0			152
1770	174	7			349
1771	15	15			368
1772	36	12			
1773	114	24	104		296
1774	158	18	114		256
1775	629	20	557		1,406
1776	86	41		127	1,216
1777	5	30		144	
1778	2	38		11	947
1779	1	28		60	
1780	0	31		154	
1781	2	24		18	
1782	1	37		17	642
1783	0	33	1	32	
1784	11	35		38	
1785	0	24		19	
1786	0	21		9	559
1787	11	35	18		
1788	0	30		7	
1789	2	28		22	
1790	8	21	20		479
1791	13	18	18		506
1792	2	16		7	
1793	0	10		14	
1794	2	13		16	525
1795	2	11		13	550
1796	2	5		9	452
1797	0	9		21	450
1798	0	7		13	425
1799	0	7		15	476
1800	0	7		61	363
1801	0	3		42	313
1802	0	6		17	295
1803	0	2		32	263
1804	0	7		9	193
1805	0	1		41	
1806	0	1		23	201
1807	0	0		19	
1808	0	5		3	155
1809	0	5		15	
1810	0	5		6	
1811	0	2		9	
1812	0	3		13	
1813	1	2		5	
1814	0	0		10	
1815	11	1	6		
1816	0	0		2	
1817	0	0		10	
1818	0	1		1	
1821	0	0		3	
1829					19

Table 2

INDIAN RECRUITMENT AS RELATED TO POPULATION AT ROSARIO MISSION, 1774-1829

Year	Gentile Baptisms	Natal Baptisms	Excess of Baptisms	Excess of Burials	Population
1774	84	0			
1775	412	7	385		207
1776	80	17	29		564
1777	17	10		58	
1778	14	14		39	
1779	10	18		32	
1780	15	11		7	
1781	8	13		24	
1782	31	14		32	251
1783	13	15	8		
1784	21	7		5	
1785	17	17	4		
1786	17	21	17		328
1787	29	17	26		
1788	5	19		13	
1789	16	17		13	
1790	18	15		1	338
1791	25	17	14		347
1792	41	16	44		
1793	6	20	6		390
1794	2	12		21	
1795	22	12	2		323
1796	6	5		15	320
1797	8	11		3	334
1798	0	8		9	300
1799	7	7	7		293
1800	3	1		34	256
1801	0	5		2	255
1802	0	4		5	255
1803	0	3		3	234
1804	1	3		9	225
1805	1	6		33	
1806	0	3		6	191
1807	0	11		4	
1808	0	5		18	199
1809	0	9		13	
1810	0	5		5	
1811	0	3		7	
1812	0	1		10	
1813	1	5		8	
1814	0	5		5	
1815	1	4		7	
1817	1	3		1	
1818	0	2		11	
1819	0	3	1		
1820	0	0		6	
1821	0	2		5	
1822	0	0		1	
1823	0	1	1		
1829					38

Table 3

INDIAN RECRUITMENT AS RELATED TO POPULATION AT SANTO DOMINGO MISSION, 1775-1829

Year	Gentile Baptisms	Natal Baptisms	Excess of Baptisms	Excess of Burials	Population
1775	2	0	1		
1776	1	2		1	
1777	18	7	21		
1778	50	6	48		
1779	22	3	18		
1780	9	8	10		
1781	6	4		40	
1782	16	1	11		79
1783	28	6	28		
1784	16	10	16		
1785	27	4	13		
1786	2	6		10	119
1787	47	4	35		
1788	11	4	3		
1789	46	4	35		
1790	44	5	21		205
1791	86	9	80		194
1792	37	7	21		
1793	9	6		5	296
1794	17	2	7		261
1795	58	11	59		300
1796	15	9		5	300
1797	3	6		5	300
1798	2	4		4	300
1799	3	6		3	390
1800	18	8	3		315
1801	3	4		25	278
1802	0	10	3		267
1803	0	7		11	257
1804	2	7		7	267
1805	3	16		16	
1806	1	4		10	214
1807	0	6		4	
1808	0	10		16	194
1809	1	11	0	0	
1810	0	4		3	
1811	1	7		7	
1812	0	4		11	
1813	1	8	4		
1814	0	5		3	
1815	0	4		9	
1816	0	5	1		
1817	1	4		14	
1818	0	2		8	
1819	0	1		3	
1820	1	2		6	
1821	3	3		3	
1822	0	2		3	
1823	0	3	3		
1827	0	4		1	
1828	0	2		5	
1829					73

tisms. During the first years of operation, the missionaries recruited the bulk of gentiles who entered the missions. At San Fernando, for example, the missionaries recorded 95% of gentile baptisms in ten years as against 31% of natal baptisms. In all three establishments, gentile baptisms outnumbered recorded burials, and the mission populations grew. With the successful completion of recruitment, however, population growth depended on natural reproduction, and births over the long run failed to match deaths. The net result was a slow decline from a maximum recorded population reached during the period of heaviest recruitment.

Given that the total number of children born at the mission was small, the size of the Indian family would also have been small. For a population to expand a family would have had to produce three children or more, whereas a stable or declining population produces families with no children or only one or two children (Cook 1936:3).

Two variables are available to test the hypothesis of small Indian families in the missions, average family size and actual family size. When examined, the first variable, average family size as calculated by dividing the population of a given mission by the number of families, confirms the pattern of small Indian families for four northern Baja California missions in 1782. In that year, a population of 1,055 mission Indians averaged four children per family. The second variable, actual family size as taken from more detailed censuses which divide the population into family groups, shows upon inspection that most families in several missions ranged in size from two to four people. In 1773 and 1774, 98% of the families at Santa María and San Fernando missions had a size of two to four people; 61% of the families in 1773 and 59% of the families in 1774 contained two or fewer children. Similarly, 92% of the Indian families at San Vicente Mission in 1813 had a

size of two to four people, and 36% of the families had no children.

The reality of the northern missions, then, was one of declining Indian populations caused by high disease-related mortality and a low birth rate. A comparison of aboriginal population levels with mission populations on the eve of mission secularization clearly demonstrates the degree of depopulation taking place. Estimates of contact population levels by Meigs and Aschmann suggest figures of 6,745 Indians living in the area missionized by the Dominicans in northern Baja California (Meigs 1935: 140)³, and 3,500 Indians living in the Santa María-San Fernando mission district (Aschmann 1959: 128). From an estimated 10,245 individuals at contact, the numbers dropped to a mere 636 among seven missions in 1829, a maximum decline of 94% over 63 years (Table 4).

Table 4

**ABORIGINAL POPULATION AND
PERCENTAGE OF DECLINE AT THE
NORTHERN BAJA CALIFORNIA MISSIONS***

Mission	Aboriginal Population	1829 Population	Percentage Decline
Santa María San Fernando	3,500	19	99
Rosario	1,095	38	96
Santo Domingo	840	73	91
San Vicente	780	80	90
San Miguel - Descanso	665	154	77
Santo Tomás	1,000	121	88
Santa Catalina	1,000	151	75

*Aboriginal population figures taken from Meigs (1935) and Aschmann (1959).
Population figures for 1829 taken from Jackson (1981).

**SAN VICENTE MISSION:
A CASE STUDY**

The demographic history of the northern Baja California Missions can be studied in some detail by examining the population data from San Vicente Mission. Although no baptismal register survives, a burial register does

exist and there is a detailed 1813 census that sheds considerable light on the state of the population at one point in time.

Missionaries Miguel Hidalgo, O.P., and Joaquin Valero, O.P., established San Vicente Ferrer Mission on August 27, 1780, in a district occupied by Ipai (Diegueño) speakers, or by Indians speaking a closely related dialect (Meigs 1935: 24; Massey 1949: 274). Meigs identified three dialects or small tribal groupings in the San Vicente area: the Nalkipa, who occupied the mission site; the PaiPai from the mountains east of the mission; and the Kwatl north of the mission (Meigs 1939: Map 1).

By comparing the rate of recorded burials at San Vicente and Santo Domingo with the rate of baptisms at Santo Domingo and Rosario, Meigs (1935: 137) arrived at a figure of 780 for the population of the San Vicente Mission district. In a gradual process which probably lasted some 20 to 25 years, the Dominicans converted the bulk of the local Indian population although many gentiles escaped incorporation into the mission (Meigs 1935: 153). Consequently, the largest mission population was considerably lower than aboriginal population levels.⁴ Following a series of epidemics in the 1780s and 1790s, the population of San Vicente Mission declined from 300 in the late 1780s to a mere 181 in 1791 (Jackson 1981: 339). During the rest of the 1790s decade, the population recovered as the Dominicans continued to baptize gentiles and, in 1802, 293 Indians lived at the mission (Jackson 1981:340). The population declined a second time under the impact of disease and a shortage of recruits to replace those individuals who had died. There were 211 of the latter in 1808, and 186 five years later (Jackson 1981: 340; Fernández Pérez census, 1813).

The detailed 1813 census provides data on the population of San Vicente Mission. As previously noted, only a small percentage of

families had more than two children, and 36% had no children at all. Furthermore, a significant percentage of the population, 23%, were children, probably orphans, between the ages of one and 13. The population was, therefore, still fairly young; 48% of the people were below the age of 20, and only 18% were over the age of 40 (Fernández Pérez census, 1813; see Table 5).

The age distribution at San Vicente Mission was also indicative of the low life expectancy. In 1813, only 30% of the population was over the age of 30. Moreover, the 1813 census, which gives an age for each individual, in conjunction with the mission burial register for the years 1814-1817 (there is a ten-year hiatus for the years 1818-1827), enables a calculation of an average age at death. There are, however, several limitations in this methodology. Burials of children listed in the census cannot, with one exception, be accurately identified in the burial register. Also, the missionaries inflated the ages of elderly gentiles incorporated into the mission community by overestimating their ages at the time of baptism. Therefore, data for 23 burials exclude burials of several children and of one man whom missionary Fernández Pérez identified as being 125 years of age in 1813. Nevertheless, an average of 29.6 years at death is indicative of a general trend of low life expectancy (26.4 years for women, 32.6 years for men).

Table 5
AGE DISTRIBUTION AT
SAN VICENTE MISSION IN 1813

Age Group	Individuals	Percentage of Total*
0-10	49	26
11-20	40	22
21-30	41	22
31-40	23	12
41-50	17	9
51-60	12	7
61 and above	4	3

*Percentages rounded off to nearest whole number.

Depopulation continued over the next 16 years, and children made up a progressively smaller percentage of the population. In 1829, 80 Indians remained, but only 12 children—a mere 15% of the total population (Jackson 1981: 341)⁵.

COMPARISON WITH SELECTED ALTA CALIFORNIA MISSIONS

The methodologies employed in examining demographic patterns in the northern Baja California missions are equally applicable in selected Alta California establishments: Santa Cruz Mission (est. 1791), San Rafael Mission (est. 1817), and San Francisco Solano-Sonoma Mission (est. 1823). In the three missions, for example, more gentiles received baptism than did Indians born at the missions; 4,499 gentile baptisms as against 1,201 natal baptisms. Interestingly, the three Alta California establishments had a lower percentage of natal baptisms in relation to the recorded total; 21% compared to 32% for the three Baja California missions.

As was the case in the three Baja California missions studied above, population growth at the three Alta California settlements depended upon gentile recruitment. At Santa Cruz Mission, an excess of 531 baptisms between 1791 and 1796, and totals of 691 gentile and 46 natal baptisms compared to 206 burials, saw the population reach a recorded maximum of 523 in 1796. In subsequent years, the population fluctuated depending upon the success of gentile recruitment, but after 1810 the numbers began a period of decline and reached a low point of 358 in 1816. Between 1811 and 1816, burials outnumbered baptisms by 143, with gentile baptisms totaling a mere 28. Beginning in 1817, however, the Santa Cruz missionaries successfully recruited large numbers of Yokuts from the Central Valley, and the population increased to 519 in 1821. In five years, 290 gentiles entered the mission and burials totaled 176. After

1821, recruitment slackened, and a second period of decline followed. Between 1823 and 1834, the missionaries baptized 80 gentiles, but burials in the same years totaled 443. In 1833, 236 Indians remained at the mission (Santa Cruz Baptismal and Burial Registers; see Table 6).

San Rafael and Sonoma missions entered upon a period of population growth that was related to successful gentile recruitment in the years before mission secularization began in 1834. The San Rafael missionaries baptized 1,541 gentiles from 1817 to 1831, and the population stood at 1,078 in 1831. Over the next eight years, however, including the first five years of secularization, only 19 gentiles entered the mission, and burials totaled 226 (San Rafael Baptismal and Burial Registers). The Franciscans stationed at Sonoma experienced a similar success in gentile recruitment. Between 1824 and 1838, 1,175 non-Christian Indians entered the mission, while the maximum recorded population was 996 in 1832. Following secularization, gentile and natal baptisms totaled 272 and burials 206, yet in 1840 only 144 Indians remained at the mission (San Francisco Solano Baptismal and Burial Registers). A number of people apparently took advantage of the secularization process to leave the mission (Tables 7-8).

CONCLUSION

Under the impact of disease the Indian population of Baja California declined in numbers. Congregated into mission communities, the Indians were increasingly exposed to smallpox, measles, and other Euroasian diseases, and failed to reproduce in sufficient numbers to match high disease-related mortality. In the course of some 60 years, the Indian population of the northern Baja California missions declined by a maximum of 94%.

Indian depopulation manifested itself in a number of basic demographic patterns. Bap-

Table 6

INDIAN RECRUITMENT AS RELATED TO POPULATION AT SANTA CRUZ MISSION, 1791-1840

Year	Gentile Baptisms	Natal Baptisms	Excess of Baptisms	Excess of Burials	Population
1791	82	0	80		89
1792	73	1	69		158
1793	78	4	76		233
1794	119	11	103		332
1795	242	15	183		507
1796	97	14	20		523
1797	20	13		31	495
1798	72	16	24		504
1799	26	14		30	468
1800	41	11	1		472
1801	15	10		26	442
1802	42	14		5	437
1803	17	14		2	437
1804	63	12	26		461
1805	61	13	21		464
1806	90	15	0	0	466
1807	49	12	8		
1808	31	15		3	485
1809	1	6		42	449
1810	120	11	70		507
1811	1	9		46	462
1812	0	9		21	437
1813	1	8		40	398
1814	10	6		10	388
1815	1	11		35	365
1816	15	12		7	358
1817	69	14	50		408
1818	29	21	19		410
1819	0	13		35	381
1820	94	19	80		461
1821	98	13	80		519
1822	0	20		19	499
1823	10	16		37	474
1824	13	16		19	461
1825	1	18		32	429
1826	19	12		1	428
1827	1	10		18	410
1828	6	10		45	364
1829	7	3		31	333
1830	4	12		13	320
1831	1	9		23	
1832	0	7		28	284
1833	2	6		8	236
1834	16	12	13		
1835	3	3		13	
1836	1	4		13	
1837	3	4		9	
1838	4	7		38	
1839	3	5		1	71
1840	0	6		2	102

Table 7

INDIAN RECRUITMENT AS RELATED TO POPULATION AT SAN RAFAEL MISSION, 1817-1840

Year	Gentile Baptisms	Natal Baptisms	Excess of Baptisms	Excess of Burials	Population
1817	31	0	31		
1818	164	15	151		386
1819	123	18	116		509
1820	102	12	86		590
1821	145	11	110		696
1822	181	18	144		830
1823	96	23	76		895
1824	204	20	161		839
1825	135	22	87		1,008
1826	109	21	66		1,051
1827	29	15	6		1,050
1828	73	16	27		1,026
1829	2	15		18	1,008
1830	4	19		6	970
1831	143	15	129		1,073
1832	5	15		18	300
1833	0	14		24	
1834	2	8	2		
1835	0	12		11	
1836	0	11		17	
1837	1	9		8	
1838	2	9		35	
1839	9	10		8	
1840					93

Table 8

RECRUITMENT AS RELATED TO POPULATION AT SAN FRANCISCO SOLANO MISSION, 1823-1840

Year	Gentile Baptisms	Natal Baptisms	Excess of Baptisms	Excess of Burials	Population
1823				1	
1824	64	32	60		692
1825	79	8	57		634
1826	96	11	43		641
1827	77	13	27		667
1828	110	19	40		704
1829	94	23	66		772
1830	10	15		12	760
1831	201	31	179		939
1832	101	26	57		996
1833	0	22		105	781
1834	174	13	141		
1835	115	18	84		
1836	6	26	31		
1837	47	19	42		
1838	1	26		65	
1839	0	14		26	
1840					141

tism of Indian children born at three missions totaled 33%, 32%, and 33%, and Indian families in the missions generally remained small in size. Life expectancy was low at one mission, and the population there fluctuated as the missionaries recruited gentiles to replace those Indians who died in the missions. Mission population size was closely related to patterns of gentile recruitment.

The demographic patterns described above probably characterized as well the missions of central and southern Baja California and, with some differences, other mission groupings in northern New Spain. In the Alta California missions examined for this essay, for example, the majority of recorded baptisms were of gentiles and, as was the case in the Baja California establishments, mission population size was closely tied to successful gentile recruitment. Demographic patterns in the missions of the northern frontier provinces of New Spain differed, but the net result of contact with Spanish civilization—Indian depopulation—was in all cases nearly the same.

NOTES

1. Complete runs of baptisms and burials survive from only four Baja California missions: San Francisco de Borja (est. 1762), Santa Gertrudis (est. 1751), Rosario (est. 1774), and Santo Domingo (est. 1775). The extant burial register for San Fernando begins in 1773, four years after the mission was established.

2. After its closing in 1775, the Dominicans transferred the population of Santa María Mission (est. 1767) to the jurisdiction of San Fernando.

3. The total aboriginal population of the Dominican mission frontier included the Indians living in the San Pedro Martír Mission district (est. 1794), which was closed prior to 1829. Indians from the mission probably went to other nearby missions.

4. The largest mission population was recorded sometime between 1786 and 1790. Sales' (1956: statistical table) 1787 figure of 317 seems a bit high, but an estimate closer to 290-300 appears reasonable.

5. In 1829, the population of seven missions totaled 636, but included only 136 children, 21% of the total.

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