Transforming an Eighteenth-Century Archive into a Twenty-First-Century Database: The Early California Population Project

Steven W. Hackel*
Oregon State University

Anne Marie Reid*
University of Southern California

Abstract

The Early California Population Project is a database recently completed by research scholars at the Henry E. Huntington Library. The project is part of a wave of new databases that are opening up various regions of Early America for additional study; yet, unlike other databases, the Early California Population Project's records are overwhelmingly of Indians. The database offers new opportunities for historians and anthropologists interested in Indians, Catholic missions, Spanish soldiers and settlers, and family and community formation along the Spanish colonial frontier of North America between 1769 and 1850.

In what observers will surely look back upon as the onset of the Age of Database Creation, historians, archivists, cataloguers, genealogists, and publishers are now transforming how history is consumed and how it is produced. The advent of the microcomputer and the Internet have changed virtually all avenues of our profession, but historians and social scientists who work with population records and vital registers may stand to benefit most from these developments. In the past decade alone numerous significant population databases have gone online, thereby providing unparalleled public access to state and national census records as well as the birth, marriage, and burial records of individuals who inhabited various regions of Europe and North America centuries ago.

European and Canadian scholars have been at the forefront of these developments, but North Americanists are now catching up.[1] Most notably for early Americanists, the Programme de Recherche en Démographie Historique (PRDH) based at the Université of Montréal provides access to approximately 690,000 baptism, marriage, and burial certificates dated prior to 1800, as well as burial acts of Québec Catholics born before 1750 who died between 1800 and 1850. These records come from more than

153 parishes, missions, and institutions of New France. Scholars working on regions that are within the United States also have begun to make significant contributions to the world of online databases. Collaborative in origin and years in the making, their projects are creating new foundations for the interpretation of the colonial history of North America. For example, in 2005, Mission 2000, a searchable database of Spanish mission records of the Pimería Alta (southern Arizona and northern Sonora, Mexico), came online. The database contains baptisms, marriages, and burials from the late seventeenth century to the mid-nineteenth century. Now, researchers at the Henry E. Huntington Library have completed their work on the Early California Population Project, a database of records that is of unique importance to the study of Alta California, the American Southwest, and northern New Spain. This project allows free and easy consultation of all information contained in the California mission registers, sources that document the lives of more than 100,000 individuals who lived in Spanish and Mexican California before 1850.

The Early California Population Project offers superb opportunities for the study of the people and communities of early California. Through the database historians can study in greater detail the individuals and families who settled California's first presidios and pueblos. Anthropologists and ethnohistorians can examine the settlement patterns of Indians in Alta California and their movements to and between the missions. Historians can bring greater detail to their understanding of the pace and magnitude of Indian population decline and the growth of settler communities in Alta California. Scholars of religion can study the practice and administration of Catholicism in the California missions. Social historians can study the changing structure of the missions and secular communities of Spanish and Mexican California. And genealogists can more easily trace and identify the people who lived in California between 1769 and 1850.

What distinguishes the Early California Population Project from most online resources is the fact that the majority of the individuals included in the database are Native American, not European colonists, soldiers, or settlers. Thus, the database provides unusual research opportunities, not only for scholars interested in colonists but for researchers who study the colonized. This article explains the nature of the Early California Population Project (ECPP), documents its development at the Huntington Library, and suggests its potential to enrich the work of a wide range of scholars and researchers. Towards that end it offers four examples of the data in the ECPP database as a guide and stimulus to future researchers.[2]

Almost ten years in the making, the ECPP is an online computer database of all the information recorded in the baptism, marriage, and burial registers kept by missionaries and parish priests in Alta California between 1769 and 1850. As such, the ECPP provides access to information found in records now scattered across California that are too old and too fragile for most scholars to handle. Microfilm copies of the original registers

exist in some archives, yet they are of variable quality. Understanding and interpreting these registers, written as they are in eighteenth- and nineteenth-century Spanish script, can demand rare skills and enormous effort. Lacking adequate staff or the resources to support genealogical or historical research, California libraries, archives, missions, and dioceses each year have been forced to turn away numerous individuals who are eager to study early California's Indian, Spanish, and Anglo-American inhabitants. Furthermore, because of barriers to access, scholars of colonial California and the Spanish and Mexican Southwest too often have not been able to incorporate the valuable information found in the sacramental records into their own research.[3]

<center>★★★</center>

The primary sources for the ECPP are the baptism, marriage, and burial registers produced by the Franciscans of Spanish and Mexican California. Like Catholic parish priests in Europe and Québec, missionaries in California kept detailed records of all the sacraments they performed. In so doing they recorded crucial information on Indians affiliated with the missions and the region's Spanish and Mexican population, all of whom were at least nominally Catholic. Whenever missionaries baptized an individual, they, to the best of their abilities, recorded that individual's native name, birthplace, age, parents, marital status, children, siblings, godparents, Spanish name, and any other information they deemed unique or relevant. They also assigned each individual baptism record a number unique to that mission. Similarly, when they married or buried an individual, they assigned each marriage or burial record a number unique to that mission, and in these records they nearly always recorded the Spanish name, family name, age, marital status, place of baptism, family relations, and, if known, the baptism number of the deceased or the bride and groom. Because the baptism, marriage, and burial registers for California's twenty-one missions are largely complete, consistently thorough, and in many ways cross-referenced, baptism, marriage, and burial records can be linked and sorted by individual, even in cases where people moved from mission to mission. The California mission registers, therefore, contain the information necessary to reconstruct not only the individual life histories of the tens of thousands of Indians and settlers who lived in Alta California but the divergent population dynamics of these groups.

All basic data entry for the project was completed in June 2006 and the database went online through the Huntington Library's homepage in August 2006 (http://www.huntington.org/Information/ECPPmain.htm). While the vast majority of the ECPP data was compiled at the Huntington, the project benefited from the generosity of scholars willing to contribute their own data to the project.[4] All donated data was modified so that information in each field for each record would conform to the conventions

Table 1. Baptism, marriage, and burial records in the ECPP by mission.

Mission	Baptisms dates 1770–1855	Records	Marriages dates 1772–1855	Records	Burials dates 1770–1855	Records
San Francisco Solano	1824–1850	1761	1824–1850	361	1823–1839	872
San Rafael	1817–1850	2091	1818–1839	594	1818–1839	848
San Francisco	1776–1850	6944	1777–1850	2120	1776–1850	5584
San Jose	1797–1850	8453	1797–1850	2547	1797–1850	6786
Santa Clara	1777–1850	10301	1778–1850	2935	1777–1849	8263
Santa Cruz	1791–1850	2613	1791–1850	903	1791–1850	2195
San Juan Bautista	1797–1850	4978	1791–1850	1232	1797–1850	3854
San Carlos Borromeo	1770–1850	5101	1772–1850	1247	1770–1855	3590
La Soledad	1791–1840	2289	1792–1849	734	n/a	n/a
San Antonio	1771–1850	4671	1773–1846	1284	1771–1849	4069
San Miguel	1797–1844	2893	1798–1850	955	1798–1843	2351
San Luis Obispo	1772–1855	3267	1776–1844	867	1772–1850	2746
La Purísima	1788–1850	3392	1788–1851	1085	1789–1851	3066
Santa Ines	1804–1850	1665	1804–1850	499	1805–1850	1639
Santa Barbara Mission	1786–1850	4747	1787–1850	1410	1787–1841	4012
Santa Barbara Presidio	1782–1850	2045	1786–1850	350	1782–1850	1006
San Buenaventura	1782–1850	4200	1782–1849	1205	1782–1850	3698
San Fernando	1797–1847	3100	1798–1847	883	1798–1850	2430
San Gabriel	1771–1848	8892	1774–1855	2137	1774–1849	6147
Los Angeles Plaza Church	1826–1848	1793	1840–1849	177	1826–1844	662
San Juan Capistrano	1776–1850	4684	1777–1847	1227	1777–1848	3443
San Luis Rey	1798–1844	4844	n/a	1298	n/a	n/a
San Diego	1771–1845	7120	1775–1845	2053	1775–1831	4164
Totals	1769–1848	101,844	1770–1848	28,103	1769–1850	71,425

of transcription outlined by ECPP staff. The project has records on over 101,000 baptisms, 28,000 marriages, and 71,000 burials Franciscans performed in California between 1770 and 1850 (Table 1). The overwhelming majority of these records are of native peoples. No other region of colonial America that became part of the United States has a database of such an extensive set of vital records. The ECPP encompasses records from all twenty-one of the California missions, in addition to the Los Angeles Plaza Church (1826–49) and the Santa Barbara Presidio (1782–1850). There are, unfortunately, a few notable gaps in the documentary record. The burial records for Mission Soledad have been lost. All baptism, marriage, and burial records from Mission San Luis Rey are missing, but the project used a household census (the mission *padrón*) to reconstruct

some of the mission's population.[5] There are major gaps in baptisms at Mission San Gabriel. And at San Diego there are no burials after 1831. With these exceptions the missions' sacramental records are complete. Of course, each mission has its own idiosyncrasies, and these are discussed in various memos located on the ECPP website (http://www.huntington.org/ Information/ECPPsearchtips.htm#missionnotes).

The database was originally constructed in Microsoft Access and later, as the project grew to encompass data from many missions and required a full-time staff of four, it was transferred to Microsoft SQL server. In its current form the ECPP database has more than 86 fields related to individual baptism records, 93 covering the marriages of individuals, and 46 concerning burial information. The database has separate tables for marriage witnesses, godparents, and relatives of individuals who appear in baptism, marriage, and burial records. All of these tables are available online. A Guide to Users that accompanies the database helps researchers search fields and explains the conventions followed by data entry personnel with respect to each field (http://www.huntington.org/Information/ECPPuserguide.htm).

★★★

The primary goal of the project has been an electronic version of the original records. Therefore, information has been transferred to the database as it appears in the original Spanish documents. Project staff did not standardize any of the variant spellings found throughout the records. A secondary goal of the project has been to link together the dispersed baptism, marriage, and burial records of individuals to facilitate data retrieval and the creation of histories of individuals and families. For the non-Indian population, the creation of links between records is quite easy, as first and last names are included for all records with great consistency. Complicating the linking of records for Indians, however, was the fact that Indians do not have family names recorded in the records. Fortunately, though, the missionaries also included in their records for Indians many other bits of identifying information that permitted project staff to link burial records to baptism records, marriage records to baptism records, and children's baptism records to their parents' baptism and marriage records.

Some database projects have used automated linking programs, but all links in the ECPP were done manually by the staff of the ECPP. Since these links are the result of many decisions that may not be readily apparent to subsequent users of the database, the database includes separate fields that explain how each and every link was made. There are thirty-nine different ways the link between two records of the same individual could have been established. Sometimes the Franciscans made the link themselves by recording in a marriage or burial record an individual's baptism record number and mission. In other instances ECPP staff determined the link through various combinations of evidence, such as
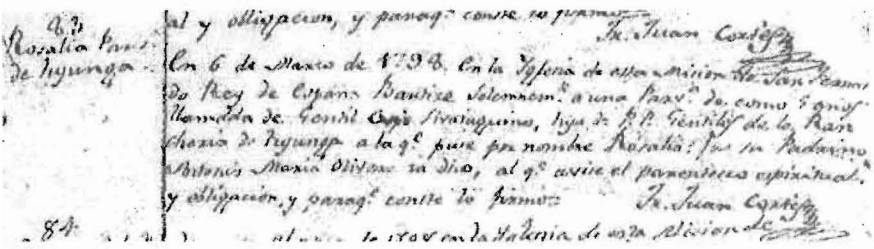
Fig. 1. Baptism record of Rosalia, Mission San Fernando.

the year of the individual's birth, or the name of the individual's parents, siblings, or spouse. Currently, 90% of death records are linked to the deceased's baptismal record, 72% of baptism records that list information on a Spanish-named mother are linked to the mother's baptismal record, and 65% of baptism records that list information on a Spanish-named father are linked to the father's baptismal record. Furthermore, ECPP staff cross-linked the bride to her baptism record in 90% of marriages and the groom to his baptism in 88% of marriages.

<p style="text-align:center">★★★</p>

The ECPP database is best conceptualized as consisting of three primary interrelated tables, one for baptisms, a second for marriages, and a third for burials. To illustrate this structure, the following figures show the life of one woman, Rosalia of Mission San Fernando, as revealed in the database. Her life was like many others in the missions. She was born in a native village in 1793 and was baptized as a young girl at Mission San Fernando in 1798. She married at San Fernando in 1805 and died in 1821. Figures 1, 3, and 5 display the baptism, marriage, and burial records for Rosalia, and Figures 2, 4, and 6 provide transcriptions of those records and illustrate how the information in the individual records is distributed across the fields of the database.

To give readers a sense of the database and the range of scholarly inquiries it can support, we'll now discuss in detail some of the information gathered in four specific fields of the database: place of origin, marital status, cause of death, and caste or *calidad* classification.

PLACES OF ORIGIN (BAPTISM TABLE)

Missionaries and Spanish military officials classified California Indians into two basic groups: *gentiles* (those born in and resident in native villages), and *neófitos* (Indians born in or resident in the missions who had been baptized). Baptism, in the missionaries' eyes, turned gentiles into neophytes. In studying the gentiles through the ECPP database, scholars can view many
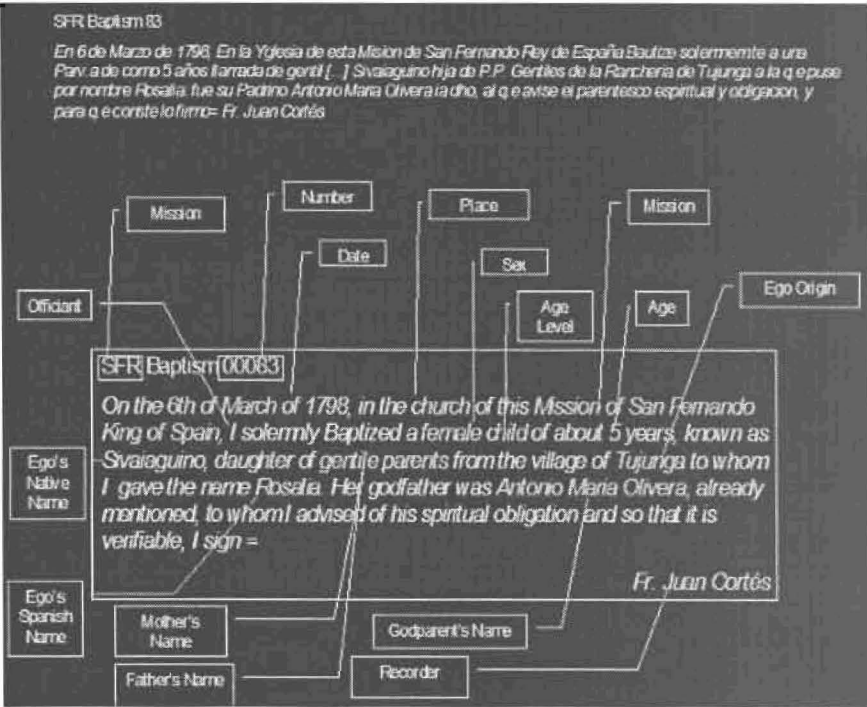
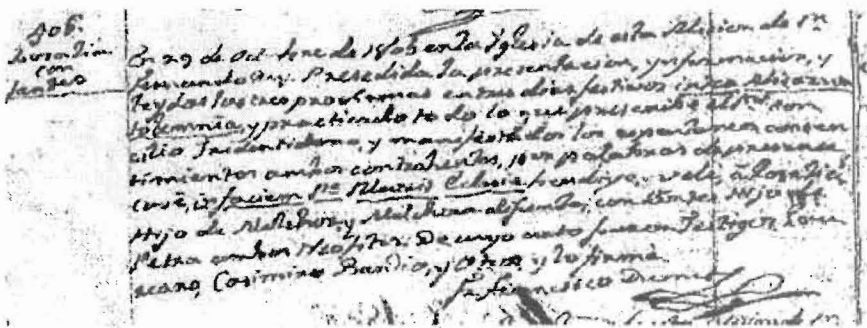Fig. 2. Transcription and diagram of San Fernando Baptism 83.

Fig. 3. Marriage record of Rosalia, Mission San Fernando.

facets of the lives of Indians as they existed before they became formally attached to the missions. Among the most basic pieces of information the missionaries recorded about the gentiles who presented themselves for baptism was their village of origin. Thus, the database provides the best means for scholars to study the size and location of native villages in Alta California and the movement of people from those *rancherías* into the
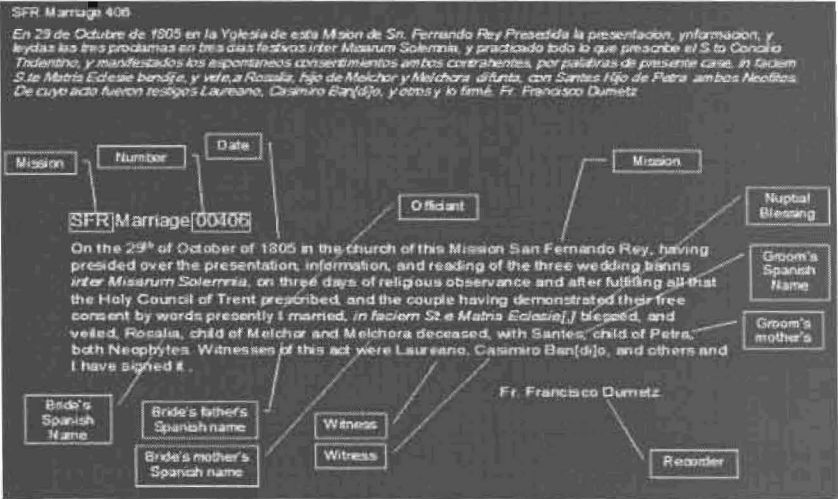
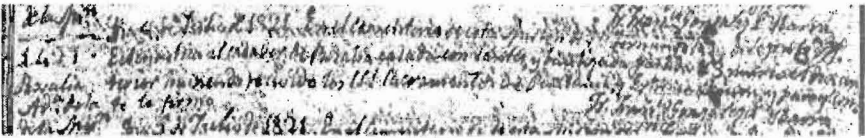Fig. 4. Transcription and diagram of San Fernando Marriage 406.

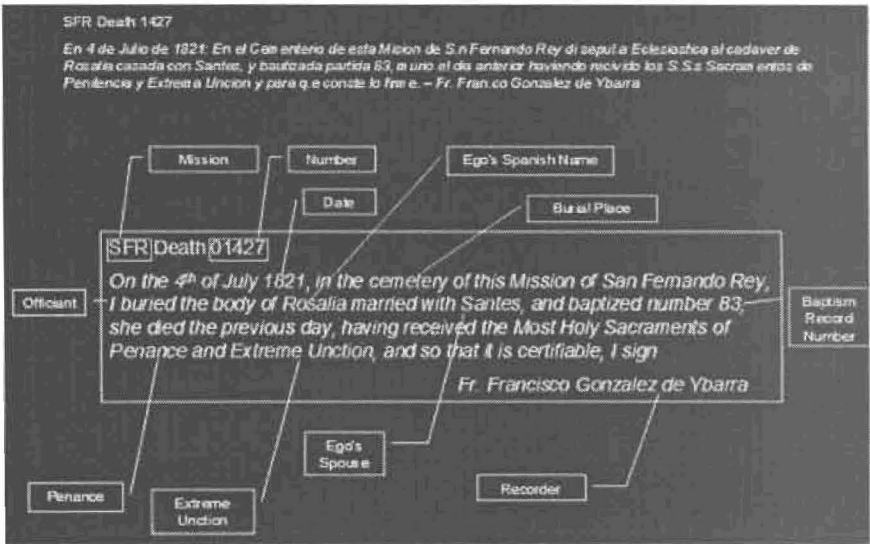Fig. 5. Burial record of Rosalia, Mission San Fernando.

Fig. 6. Transcription and diagram of San Fernando Burial Record 1427.

missions. Missionaries recorded the Indians' villages of origin in a multitude of ways, often within the same mission community. Even individual Franciscans employed a variety of expressions to refer to the same locale. For example, the Mission San Antonio de Padua village of *Atnil* has several variations, including '*Attinél*', '*Atnil como quatro leguas mas alla del Rio de Monterrey*' or '*San Lucas aliás Atnil*'.[6] Although these phrases make reference to the same area, the supplementary information – the phonetic emphasis, geographic locality and alternate designations – adds depth to the historic record of this place. Places of origin were sometimes expressed as a combination of how the Indians said the name and what the missionaries began to call it, such as in '*la Rancheria llamada en la lengua de los Naturales Chayp alias la Punta*'.[7] Over time, among the missionaries, a preference for using the Spanish designation over the native term emerged, especially with the rise of ranchos and settlements. In this sense, missionaries manifested their belief that they had transformed the landscape from native/ heathen to Spanish/Catholic, just as they sought that same transformation among the Indians' themselves.

While anthropologists may be most interested in the places of origin of Indians who came to the missions, historians of New Spain may turn to the Franciscans' careful documentation of the places of origin of the soldiers and settlers recorded in the database. The marriage records in the database are particularly rich in this information since missionaries were careful to identify the place of birth of the bride and groom. While some of the same information can be found in the Alta California census of 1790, scholars will be able to add new detail and depth to our understanding of the origins of the soldier-settler communities of Spanish and Mexican California.[8]

MARITAL STATUS (MARRIAGE TABLE)

For anthropologists and historians, marriage and marriage patterns have long been the focus of scholarly inquiry, and the ECPP database provides tremendous opportunities for scholars interested in studying the intersection and conflict of native and Spanish marriage practices and customs. Missionaries performed two distinct types of marriage ceremonies in Alta California, and these differences are captured in an ECPP field devoted to the marital status of the bride and groom. Throughout the period in which the Franciscans were actively recruiting gentiles from the countryside, the missionaries sought to renew marriages of Indians who were already married according to native custom. Overall, renewals constitute about 28% of the nearly 26,000 Indian marriages in the database. These marriages, performed among couples immediately after their baptism, were recorded as marriage renewals, and they are noted as such in the database. Careful study of marriage renewals in the missions can lead scholars to new understandings of the age at marriage among natives before the Spaniards arrived and the frequency with which Indians from different villages and groups married. Moreover,

marriage renewals provide crucial insight into the social structure and marriage practices of native communities, as the records reveal that village leaders often came to the missions with more than one wife.

Eventually, as Indians born in the missions or those who came for baptism reached marrying age, more and more marriages at the missions were standard marriages. In these marriages, the missionaries documented if the bride and groom were single or widowed. The majority of Indian brides in the California missions married as single females: 10,096 brides were listed as single (or inferred by ECPP staff to be single). This figure is higher than the 7822 previously unmarried grooms in the data base, suggesting that young single men had trouble competing with their seniors in the marriage market. Among Indians, fewer women than men remarried after the death of a spouse: only 5022 widows compared to 7186 widowers. Among the soldier-settler population, there was less disparity among marital status: in all marriages, there were 1756 men marrying for the first time and 1688 women listed or inferred to be single at the time of marriage; 309 widowers remarried, whereas 264 widows found new husbands.

CAUSE OF DEATH (BURIAL TABLE)

Ever since Europeans set foot in the Americas, the tragedy of Indian population decline has haunted and shaped understandings of the colonial period. Few issues have generated as much debate as the origin and magnitude of the decline of New World populations in the decades and centuries after 1492. For generations, scholars have mined mission records to describe the causes and rates of Indian mortality.[9] Over the past few decades most of this work has been quantitative, but the best has combined both the quantitative and the qualitative. The ECPP database allows scholars to reexamine qualitative documentation of Indian depopulation in the California missions as well as perform quantitative studies of Indian mortality.

Catholic missionaries were obliged to provide the dying with the final sacraments and record who received which sacraments before death. However, when Indians or soldiers and settlers died in a manner that prevented them from receiving the final sacraments — perhaps because they were away from the mission or because of disease or a mishap at the mission — the Franciscans recorded the cause of death as a way of explaining why they did not administer the sacraments. Franciscans documented the cause of death in roughly 3300 of the more than 65,000 Indian burial records in the database. Some of these causes are vague, and most are simply stated as 'illness', 'accidental', or 'sudden'. However, the missionaries did note episodes of epidemic disease, such as influenza, measles, and smallpox, and the database can be used to track the spread of illness from mission to mission. Interestingly, missionaries make no mention of smallpox (*viruelas*) in the California missions until the 1830s and 1840s. Syphilis is cited on occasion as the cause of death, as is dysentery. Military executions

and homicides account for only a handful of records with a death cause, and deaths of mothers during childbirth are scarce. Other causes of death that illuminate life and its hardships include earthquakes, bear attacks, insect bites, and falls from horses.

CASTE OR *CALIDAD* CLASSIFICATIONS (BAPTISM, MARRIAGE, AND BURIAL TABLES)

Throughout the colonial period, Spanish officials manifested a preoccupation with categorizing individuals by race, ethnicity, profession, age, place of birth, religion, and other cultural categories specific to place and time. In their record keeping, Franciscans always sought to identify and classify individuals, and the mission records speak to the degree to which discourses of race were subordinated in Alta California to other means of identification. There were about 11,000 Spanish non-Indians baptized in California through the 1840s. In approximately 4922 of these baptisms, the missionaries explicitly identified the newborn by race or cultural category. They classified 4888 as *Gente de Razón*, a term that in California became a stand-in for the category Español and was used most frequently to identify Catholic non-Indians. Español as a term appears in the records of only 15 children born and baptized in California. Equally surprising, the missionaries only identified 18 individuals as mestizo even though there is no doubt that far more people born in California were of mixed-race ancestry. In Alta California there were about 5200 non-Indians buried. About 1500 are classified as Gente de Razón, ten are Españoles (six in 1770s and 1780s and none again until the 1830s), one is mestizo (1849), and ten are *Mexicanos* (1840s). Español is a term so rare in the burial records that it was not even applied to Junípero Serra or the other missionaries who died in California. Marriage records also show almost no attention to any categories other *Indio* or *Gente de Razón.*

★★★

Place of Origin, Marital Status, Cause of Death, and Caste Classification are but four categories of information gathered in the ECPP database. Each of these fields, like the scores of others in the database, sheds light not only on the inhabitants of colonial California but also on the conditions within which they lived, the men and institutions that governed the region, and the degree to which Catholicism, and its strictures and practices, came to permeate, organize, and document daily life in the region. The ECPP database invites further inquiry into these topics and scores more.

Acknowledgements

Acknowledgement is also made to the following for the images contained in this work and for permission to reproduce them: Kevin Feeney of the Archival Center of the Archdiocese of Los Angeles, and Robert C. Ritchie, W. M. Keck Foundation Director of Research at The Huntington Library.

Short Biographies

Steven W. Hackel is Associate Professor of History at Oregon State University and has served as General Editor of the Early California Population Project since its inception in 1998. His work focuses on the history of Indians in colonial California, a topic explored in his first book, *Children of Coyote, Missionaries of Saint Francis: Indian-Spanish Relations in Colonial California, 1769–1850* (OIEAHC, 2005). He is currently writing a biography of Father Junípero Serra, the controversial missionary who initiated California's Franciscan missions in the eighteenth century.

Trained as a librarian, Anne M. Reid served as the Lead Data Entry Assistant for the Early California Population Project. She is currently a graduate student in the History program at the University of Southern California. Her research interests include the American West, colonial Latin America, and the Spanish borderlands.

Notes

* Correspondence addresses: Steven W. Hackel, 306 Milam Hall, Dept. of History, Oregon State University, Corvallis, OR 97331, USA. Email: steve.hackel@oregonstate.edu; Anne M. Reid, P.O. Box 93004, Pasadena, CA 91109, USA. Email: areid@usc.edu.
[1] Among the most important projects are the Canadian Century Research Infrastructure project, which will disseminate anonymized public-use microdata samples of the Canadian censuses from 1911 to 1951 (http://www.canada.uottawa.ca/ccri/CCRI/index.htm); the Population et Histoire de la Ville de Québec (http://www.phsvq.cieq.ulaval.ca/); Projet BALSAC, a database of baptisms, marriages, and burials for the Saguenay and Charlevoix regions of Québec and marriages for all of Québec from the mid-nineteenth century to the mid-twentieth century (http://www.uqac.ca/balsac/); the massive Canadian Programme de Recherche en Démograph Historique (PRDH), which is based upon all baptisms, marriages and burials contained in Quebec catholic parish registers up to 1800 (http://www.genealogie.umontreal.ca/en/) as well as the 1852 and 1881 historical censuses of Canada (http://www.prdh.umontreal.ca/1881/en/1881projects.html). Under the direction of Steven Ruggles and Robert McCaa, the Minnesota Population Center has undertaken two enormous projects. IPUMS-USA (http://usa.ipums.org/usa/), the Integrated Public Use Microdata Sample, is a database of US census materials covering 1850 to 2004, and IPUMS-International (http://www.international.ipums.org/international/) is an initiative to gather and harmonize census data from around the world. Also on the international front, the North Atlantic Population Project is developing an infrastucture for research based on digitized individual-level censuses for the late nineteenth century from enumerations of Canada, Great Britain, Iceland, Norway, and the United States (http://www.nappdata.org.napp). In addition, of great importance are the Historical Sample of the Netherlands (http://www.iisg.nl/~hsn/index.html), the Swedish Demographic Data Base (http://www.ddb.umu.se/index_eng.html), and the Danish Demographic Database (http://ddd.dda.dk/ddd_en.htm).
[2] The inherent challenges presented to researchers by mission sacramental records have been discussed at length elsewhere, and readers interested in those issues should consult the work of

John R. Johnson, Steven W. Hackel, and Randall T. Milliken. John R. Johnson, 'Mission Registers as Anthropological Questionnaires: Understanding Limitations of the Data', *American Indian Culture and Research Journal*, 12 (1988): 9–30; Steven W. Hackel, *Children of Coyote, Missionaries of Saint Francis: Indian-Spanish Missionaries in Colonial California, 1769–1850* (Chapel Hill, NC: Omohundro Institute of Early American History and Culture, 2005), especially 449–55; Randall T. Milliken, 'An Ethnohistory of the Indian People of the San Francisco Bay Area from 1770 to 1810', Ph.D. dissertation (University of California at Berkeley, 1991), 345–76.

[3] For exceptions see, Hackel, *Children of Coyote*, John R. Johnson, 'Chumash Social Organization: An Ethnohistoric Perspective', Ph.D. Dissertation (University of California at Santa Barbara, 1988), and Randall T. Milliken, – *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area, 1769–1810* (Menlo Park, CA: Ballena Press, 1995).

[4] Data for Mission San Carlos came from Steven W. Hackel; Randall T. Milliken and John R. Johnson provided their database of Missions San Antonio and San Miguel; R. Johnson shared his work on Missions San Luis Obispo and San Luis Rey; and Steve O'Neil and R. Johnson provided a copy of their work on Mission San Juan Capistrano. All of this work was checked for accuracy by ECPP staff and made consistent with ECPP guidelines. ECPP staff did not work directly with original manuscripts but rather with microfilm of the originals. Some of this microfilm is part of the Huntington Library's microfilm collection, but much of it was borrowed from institutions throughout the state. The Santa Barbara Mission Archive-Library was particularly generous in sharing its microfilm. The University of Santa Clara provided film for Mission Santa Clara, and the Archive of the Archdiocese of San Francisco permitted the ECPP to use microfilm copies of records for some of the missions of northern California. Finally, the Archival Center of the Archdiocese of Los Angeles provided a copy of various records for Mission San Fernando. Without the support of Doyce Nunis, Lynn Bremer, Anne McMahon, and Jeffery Burns, the ECPP could not have been completed so expeditiously.

[5] See John R. Johnson and Dinah Crawford, 'Contributions to Luiseño Ethnohistory Based on Mission Register Research', *Pacific Coast Archaeological Society Quarterly*, 33/4 (1999): 79–102.

[6] San Antonio de Padua Baptisms 00419, 02186, and 02865.

[7] San Diego, Baptism, 000482.

[8] William M. Mason, *The Census of 1790: A Demographic History of Colonial California* (Menlo Park, CA: Ballena Press, 1998).

[9] See, Hackel, *Children of Coyote*, for a study of Indian mortality using family reconstitution and mission records.

Bibliography

Hackel, S. W., *Children of Coyote, Missionaries of Saint Francis: Indian-Spanish Relations in Colonial California, 1769–1850* (Chapel Hill, NC: Omohundro Institute of Early American History and Culture, 2005).

Johnson, J. R., 'Chumash Social Organization: An Ethnohistoric Perspective', Ph.D. Dissertation (University of California at Santa Barbara, 1988).

——, 'Mission Registers as Anthropological Questionnaires: Understanding Limitations of the Data', *American Indian Culture and Research Journal*, 12 (1988): 9–30.

Johnson, J. R., and Crawford, D., 'Contributions to Luiseño Ethnohistory Based on Mission Register Research', *Pacific Coast Archaeological Society Quarterly*, 33/4 (1999): 79–102.

Mason, W. M., *The Census of 1790: A Demographic History of Colonial California* (Menlo Park, CA: Ballena Press, 1998).

Milliken, R. T., 'An Ethnohistory of the Indian People of the San Francisco Bay Area from 1770 to 1810', Ph.D. dissertation (University of California at Berkeley, 1991).