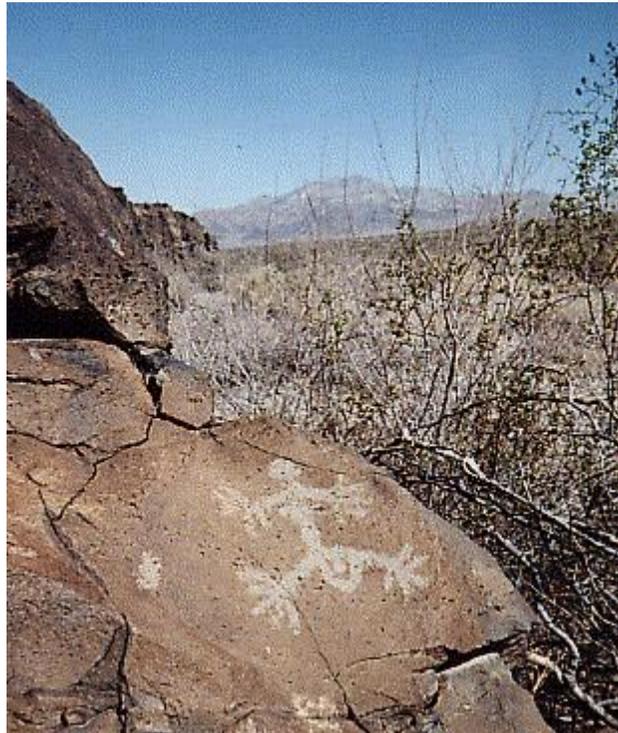




# Cultural Resources



Foxtrot Petroglyph Site

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## Cultural Historical Context

At first glance, the Combat Center appears to be located in a very hot, dry, and inhospitable area with little to recommend it for human habitation. This, however, is not the case. The installation abounds with prehistoric archeological sites, which range in size from a few feet square to many acres. The sites include high quality stone quarry areas, campsites, rock art and ceremonial locations, caves, small lithic scatters and "pot drop" or ceramic scatters; ranging in age from 150 to 10,500 years ago for Native American sites.

Historic sites in the area are related to the first mining efforts in the southern Mojave Desert, that date to the 1880s and are coincidental with the arrival of the railroads. Mining and ranching dominated the early historic period, eventually to be replaced by homesteaders. The first of these endeavors were established by World War I veterans who had been (mustard) gassed during the war and who moved to the Twentynine Palms region for the dry, clean air that was so essential and beneficial to their continued health. In the 1930s the depression era brought additional residents to the high desert; some to get away from the high cost of living in urban areas and some to attempt to obtain a living at limited mining. The 1930s brought a resurgence of mining activities in the region that continued well into the 1940s, when the military moved into the desert area.

## Background

Cultural resources management activities on board MCAGCC did not begin in earnest until the late 1980s. Prior to 1980, only two cultural resources studies had been completed aboard the Combat Center. These included the recordation of the Foxtrot Petroglyph Site (McCarthy 1979) and a reconnaissance level survey completed for the Brave Shield Exercise (Fenenga and Murray 1977). The latter study resulted in the recordation of 55 new archeological sites aboard the base. Prior to this survey, informal reconnaissance by various individuals resulted in the recordation of 11 archeological sites. These included the Foxtrot Petroglyph Site and the Surprise Spring Site, both well known archeological locations.

In summary, at the beginning of the 1980s, MCAGCC had no comprehensive surveys completed within the boundaries of the installation and there were few data available regarding the prehistory and early history of the region. What was known was that there were a number of rock art locations aboard the installation and that the western shoreline of Deadman Dry Lake and the southern shoreline of Emerson Lake were areas of particular archeological sensitivity. At this time, buildings and structures on the base were not of sufficient age to be considered significant.

# Historic Preservation Plan

In 1989, the Los Angeles District Corps of Engineers completed a draft Historic Preservation Plan (HPP) for MCAGCC (Cottrell 1989). The draft HPP set the goals for the identification and management of cultural resources at MCAGCC over a two to three year period. Since there were so few data regarding the cultural resources at MCAGCC at the time, it was felt the completion of a small sample (3%) survey of the installation would provide the types of data that would greatly enhance the development of a long term Historic Preservation Plan. The draft HPP, therefore, was written with the objective of achieving all six goals within a two to three year period, after which a more comprehensive HPP would be developed.

The six goals identified in the draft HPP were:

Complete the National Register of Historic Places documentation process for the Foxtrot Petroglyphs and submit them to the Keeper of the Register for listing;

Complete evaluation of the Surprise Springs site to determine its eligibility for listing in the National Register of Historic Places.

Complete a 3% (18,000 acres) proportional, stratified, random sample survey of the installation;

Prepare a predictive model based on the results of the sample survey to guide further survey efforts;

Provide for protective measures for sites already recorded and for those found during surveys until the sites can be evaluated for National Register eligibility and appropriate management procedures initiated;

Finally, at the end of the two year period, the HPP should be reviewed and revised taking into account the findings of the research completed to date.

The draft HPP included: 1) overview of pertinent Federal laws and regulations that pertain to cultural resource management; 2) an overview of the environmental and cultural settings of MCAGCC; 3) description of current land use; 4) a review of previous cultural resource identifications; and 5) a proposed management strategy for complying with Federal cultural resource laws and regulations. The draft HPP also included as an appendix, "*Research Design: Cultural Resources Inventory Program for the Marine Corps Air Ground Combat Center, Twentynine Palms, California*" (Altschul et al 1989). The draft HPP served to guide cultural resources investigations from 1989 through 1994.

## Major Accomplishments 1988-94

Inventory (200 acres) and assessment of the Surprise Spring Site (eligible)

Re-evaluation and nomination of the Foxtrot Petroglyph Site to the National Register of Historic Places (listed February 23, 1995)

Initial inventory and assessment of historic mining sites aboard MCAGCC



Completion of 11,363 acres of sample surveys and 7,035 acres of compliance surveys and the recordation of 383 archeological sites.

Data recovery of seven archeological sites involved with Multi-Purpose Range Complex.

Between 1989 and 1994, a total of 18,671 acres of archeological surveys had been completed; totaling 3.1% of the installation. Specific to 1994, 7,056 acres were surveyed

for archeological resources (1.2% of the installation) and the initial inventory and assessment of historic mining sites aboard MCAGCC was completed. Seven archeological sites located within the bounds of the Multi-Purpose Range Complex project area were data recovered. In July 1994, the Corps of Engineers, Los Angeles District revised the draft HPP and raised the recommended survey coverage from 3% to 5%.

## **Historic Preservation 1995-1996**

In early February 1995, Dr. Marie Cottrell came on board as MCAGCC's first Cultural Resources Specialist/Archeologist. A review of the completed cultural resources studies indicated that the sample surveys were not designed to adequately address compliance issues, or effectively evaluate the impacts of military training on significant cultural resources. Rather, the surveys were completed in areas of the installation that receive the least amount of impact during training cycles. For example, 7647.6 acres were surveyed on the Pisgah and Sunshine Peak lava flows that surround Lavic Lake. While Lavic Lake is utilized for training, the lava flows that make up the vast majority of survey area are rarely affected by training, and the archeological sites in this area suffer little or no adverse effects because of the training mission of MCAGCC. Training areas that are heavily utilized were not surveyed, and the impacts to cultural resources could not be determined.

While the basic framework of the HPP plan was well presented, the implemented survey strategy to identify cultural resources was not an effective tool to integrate compliance and conservation issues with the military mission. A new strategy towards cultural resources identification and evaluation was needed to effectively manage cultural resources in accordance with Sections 106 and 110 of the National Historic Preservation Act, as well as other pertinent laws and regulations.

The existing data gleaned through the compliance and sample surveys indicate that the installation has approximately one archeological site per 50 acres of land. This projected to an anticipated 12,000 archeological sites for the installation. Even if only 10 percent of these sites were significant, there would be 1200 sites eligible for the National Register of Historic Places on the installation, that would require some sort of preservation or data recovery as mitigation. As the base is large (932 square miles), and the cost for completing cultural resources investigations is high, it was necessary to design a program that would be cost effective and still meet the legal requirements for the continued operation of the installation as a training center.

The HPP was modified in the spring of 1995. Utilizing the Program Objective Memorandum (POM), the Marine Corps' budgetary process, a historic and prehistoric properties inventory, evaluation, and mitigation strategy was developed to meet the intent and spirit of the National Historic Preservation Act, and accommodate the military mission. Additionally, the program strategy was designed so that it could be modified at any point in time in response to findings of archeological surveys or evaluations or changes in the MCAGCC operations and training procedures. This aspect of the program

allows for responsible expenditure of funds, maximization of resources and responsiveness to the training mission.

As the HPP cannot function as a compliance document without the ratification of a Programmatic Agreement (PA) by the California State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (Council) and the Commanding General of MCAGCC, a draft reflecting the aspects presented in the HPP/POM Strategy was submitted to the California SHPO and the Council for review in March 1996.

Basic to the program was to stratify the training areas according to usage during exercises. Each training area was assigned a rank of one (1) extensive and intensive use during training exercises; two (2) moderate and limited use; or three (3) infrequent and/or little used for training. In 1995, and for the first three years of the POM (1996-1998), surveys are scheduled for training areas that are classified with a rank of one. Also within the POM, funding was identified to complete evaluation of significant sites as they are identified, and data recovery at those sites where preservation in place is not feasible.

## **Major Accomplishments FY 95**

Inventory of 1050 acres completed by in-house staff in response to installation compliance requirements.

Sample surveys of 8,500 acres in Gypsum Ridge, Quackenbush Lake and Lava training areas; all ranked as priority one.

Evaluation of 12 archeological sites in the Lavic Lake Training Area; completed to document rock art, rock alignments, and rock features in this area. These features, located near the boundary of MCAGCC, could be adversely impacted through minor surface disturbance in the area. Sixty-three images on 55 boulders were documented, as well as a number of rare/unique rock features.

A rock art reintegration project was initiated at the Foxtrot Petroglyphs to mask the accumulation of graffiti that had built up on the site over the years.

A total of 9550 acres (1.6%) were inventoried on the installation bringing the total acreage surveyed to 4.7%.

## **Major accomplishments FY 96**

A draft Programmatic Agreement was submitted to the California SHPO and the Advisory Council on Historic Preservation.

A research design and treatment plan for data recovery at four mining sites at MCAGCC was submitted to California State Historic Preservation Office and Advisory Council on

Historic Preservation. Phase I, non intrusive element of data recovery program for Crystal and MauMee Mines, Lavic Lake Mining Camp and Kenton Mill was completed.

The above investigations indicated that there were many more features present at each of the mine sites and there were many more mine sites on MCAGCC than investigated in 1994. All mines and mining features aboard the installation, therefore, were re-examined and re-evaluated in 1996.

An inventory of 797 acres was completed by in-house staff in response to installation compliance requirements.

MCAGCC contracted for 21,175 acres of archeological surveys. The survey acreage was divided among ten training areas: eight were ranked one and two were ranked two. The POM programmed for 15,500 acres of survey, but MCAGCC was able to stretch the cultural resources management dollars to obtain an additional 5675 acres of survey. Of the acreage contracted for survey, 14,275 acres were inventoried in 1996.

MCAGCC contracted to have 37 archeological sites evaluated for eligibility for listing in the National Register of Historic Places.

1. 10 sites in the Deadman Dry Lake Area of MCAGCC (field work completed) and the results indicated that some of the oldest sites in the area are located along this dry lakebed; circa (10,000 B.P.).
2. 18 sites in the Wood Canyon area of Gypsum Ridge (field work completed). This location was utilized by prehistoric Native Americans as a high quality toolstone quarry.
3. Nine sites in the Deadman Dry Lake Area of MCAGCC. The western shoreline of Deadman Dry is highly sensitive for archeological sites (in excess of 46 prehistoric archeological sites) and is also one of the most heavily used areas for CAXs as the Forward Ammunition Supply Point (FASP), the Exercise Support Base (ESB), and the Expeditionary Airfield (EAF) are all located in this area. Evaluation of archeological sites in this area have been projected over a number of years.

MCAGCC contracted to have a number of archeological features and sites data recovered. These features and sites are threatened through the destructive actions of natural forces or military training.

1. Data recovery of an eroding hearth feature at the Surprise Spring site. Heavy rains and flooding are eroding the hearth feature out of the bank of one the many drainage channels present within the site area (completed).
2. Data recovery of four significant sites in the Deadman Dry Lake area that are located adjacent to the ESB. The ESB is established at the beginning of every CAX, and is dismantled at the end of the training exercise. The ESB tends to change configuration with each CAX, and as the sites are located immediately adjacent to the ESB, they could accidentally be damaged at any point in time. As

25% of the ten sites evaluated are significant, data recovery is scheduled pending consultation with the California SHPO and the Council. One of the significant sites is approximately 10,500 years old, a second site is approximately 7,500 years old, and the remaining two sites date to within the past 1,000 years.

The rock art reintegration project was completed at the Foxtrot Petroglyphs to mask the accumulation of graffiti that had built up on the site over the years. A total of 15,072 acres (2.5% of the installation) were inventoried in 1996 bringing the total acreage surveyed on the installation to 7.3%. When the remaining acreage contracted for survey in 1996 is completed, the total acreage surveyed on MCAGCC will rise to 8.2%; 3.2% above the Corps of Engineers, Los Angeles District's revised draft HPP (1994) recommendation of 5%.

## Program Summary

### Outstanding Programs 1994-1996

- a. The addition of full time, qualified staff to oversee the cultural resources management program at MCAGCC. Marie Cottrell, Phd is the Cultural Resources Specialist/Archeologist and is assisted by Valerie Prehoda, Environmental Protection Specialist.
- b. Integrating the inventory and evaluation program with the training mission needs of the installation, to ensure the goals of the National Historic Preservation Act are met.
- c. Drafting a Programmatic Agreement, which was submitted to the Advisory Council on Historic Preservation and the California Historic Preservation Office for review and comment.
- d. Integrating the cultural resources program with the Program Objective Memorandum (POM), the Marine Corps budgetary process to ensure that the program is adequately identified for legal compliance and funding. As the POM for Cultural Resources Management was developed for the years 1996 through 2003, it also serves as the centerpiece of the draft Programmatic Agreement.
- e. Establishing relationships with the Chemehuevi and the Serrano Native American groups that have historic ties to the land currently occupied by MCAGCC. Four groups have been contacted: the San Manuel Band of Mission Indians, Twentynine Palms Band of Mission Indians, Colorado River Indian Tribes, and Chemehuevi Tribal Council. In addition to the steps taken to date, establishing more formal consultation procedures are on the agenda for a spring meeting with the Native American Groups and will be incorporated into the PA.

f. Completing the Rock Art Reintegration Program at the Foxtrot Petroglyph Site to mask existing graffiti. The purpose of the project was to reduce the visual aspects of the graffiti and to remove incentives for the addition of more graffiti. As part of this program, a *rock art booklet* was produced for distribution to Marines, family members, civilian employees, and the general public for education purposes (Appendix A), and *three anodized aluminum signs* have been designed (Appendix B) and are to be placed on the installation to reinforce the importance of this cultural resource. Marie Cottrell and Antoinette Padgett completed an article to be published in 1997 in CRM Magazine regarding the rock art reintegration project at the Foxtrot Petroglyphs.

g. Evaluating 12 sites in the Lavic Lake Training area that had rock art, rock alignments, rock circles, and other rock features associated with them. Rock art, rock alignments, and other rock features tend to be very fragile resources and even the slightest disturbances could cause irreversible damage. One site had 63 glyphs imprinted on 55 boulders; another site had a 50 meter diameter rock circle that could be a



dance circle and most likely a prehistoric ceremonial site; and the remainder of the sites all had various rock features that are important to understanding the prehistory of the region.

h. Evaluating 10 sites along the western shoreline of Deadman Dry Lake resulted in the identification of some of the oldest recorded sites in the region. Lake Mojave Period projectile points were recovered from one of evaluated sites. The Lake Mojave period is the earliest well-documented cultural manifestation in the Mojave Desert with dates ranging from circa 10,500-7,500 years ago. The archeological data from this site (as it has a well-developed midden) could greatly expand our knowledge regarding this early Mojave Desert culture. It should also be noted that a site of the Pinto Period was also located just to the north of the Lake Mojave period occupation. The Pinto Period follows Lake Mojave and dates to circa 7,500-3,500 years ago. These sites as well as others in this vicinity have the potential for adding greatly to our knowledge regarding man's early adaptation to the desert environment.

# Accomplishments

## Overall Cultural Resources Management

a. Planning, programming, and budgeting for cultural resources was greatly improved by integrating the cultural resources management program with the POM budgetary process. Survey, evaluation, and data recovery strategies under the POM process are programmed over an eight year period which, along with budgetary information allows for a programmatic approach to resources management. The POM process also allows for flexibility and can be modified at any point in time in response to findings of archeological surveys and evaluations, or changes in the MCAGCC operations and training objectives.

b. The addition of in-house staff has allowed MCAGCC to develop a comprehensive program for cultural resources surveys, evaluation and mitigation that complies with Sections 106 and 110 of the National Historic Preservation Act . Additionally, the staff has been able to complete in-house cultural resources surveys in quick response to training needs. These include surveys for the Forward Ammunition Supply Point, Forward Arming and Refueling Points, Forward Logistics Bases, and various firing positions and targets. The in-house surveys support the National Environmental Policy Act (NEPA) documentation prepared by the installation in support of various actions. The ability to complete in house surveys has saved the installation money (approximately \$50,000) and time when completing NEPA documentation for various projects aboard MCAGCC.

c. In-house cultural resources staff have been able to coordinate with Operations and Training Directorate to ensure their projects meet Section 106 requirements. Additionally, a Programmatic Agreement has been submitted to the California SHPO and the Council to bring the ongoing training mission at MCAGCC into compliance with Section 106.

All general construction projects are passed through the NEPA coordinator who ensures the Natural and Cultural Resources staff has review and comment opportunities. For those projects which require surveys, the surveys are completed by in-house staff and are coordinated with the California SHPO and Council as needed. The Natural Resources program is closely coordinated with the Cultural Resources program and both groups share resources and frequently conduct joint surveys to ensure all concerns are covered. It is an unusual occurrence, but the Ecologist at MCAGCC has extensive cultural resources experience and the Archeologist has an undergraduate minor in biology; thus, the cross referencing of resource concerns is a natural and cooperative effort.

d. MCAGCC has a Historic Preservation Plan (HPP) in place, which was modified in 1995 (in accordance with the POM budgetary process) and will be modified again in 1997 to reflect survey and evaluation findings. At the close of 1994, 3.1% of the

installation had been inventoried for cultural resources. At the close of 1996, 7.3% of the installation had been inventoried. This more than doubled the survey effort in less than a two year period, demonstrating the effectiveness of utilizing the POM process in programming cultural resources management goals and requirements.

e. A total of 480 archeological sites were officially recorded at the end of this time period. However, there are approximately 150 sites that have been located, but not yet officially recorded with the San Bernardino County Museum, Archeological Information Center. To date only one site has been officially listed in the National Register of Historic Places - the Foxtrot Petroglyph site was listed in February 1995. As it is expensive to complete nomination packages, guidance for nomination is in the process of changing, and to date only a small percentage of the installation has been inventoried with a few sites evaluated, nomination of sites or districts to the National Register awaits further investigations and guidance.

## **Historic Buildings and Structures**

The buildings and structures associated with Camp Condor and the Army glider school no longer exist. Most of those facilities were categorized as temporary, and were demolished accordingly. The remaining buildings and structures on MCAGCC post date the activation of the base as a training facility in 1952. MCAGCC, through the POM process, has programmed funding to complete an inventory of buildings, structures, and facilities in the year 2000. There is currently, however, a Legacy initiative to inventory all as built historic properties on military installations in California. Funding is to be provided in FY97 and the buildings at MCAGCC are scheduled to be inventoried under this program if approved.

## **Archeological Resources**

Over 500 archeological sites have been located within the boundaries of MCAGCC; however, only 57 have been evaluated for National Register eligibility. Sites located in Lavic Lake training area, all of the installation mines/mining sites, sites along the southern border of Emerson Lake training area, and the western border of Deadman Dry Lake have all been placed off-limits. The Surprise Spring site is located within a preserve, designated because of the large number of Desert Tortoise in the area, the presence of water lines that support the base, and the extensive archeological complex associated with Surprise Spring. The Foxtrot Petroglyph site is also placed off-limits to all personnel except for Cultural Resources staff. The Range Management office of the Operations and Training Directorate is responsible for ensuring these areas are not involved with training exercises, and the sites are periodically monitored for compliance.

Trespass within the Surprise Springs area has occurred, and the Foxtrot Petroglyph site has been subject to incidents of vandalism in the form of graffiti. Improved signage is currently being placed in the Surprise Springs area to ensure that accidental trespass does

not occur and the road in front of the Foxtrot Petroglyph site is going to be moved further south away from the lava flow on which the glyphs occur. These measures should add to the protective efforts being implemented at both sites.

Mitigation through data recovery efforts include the data recovery of seven sites in the Gypsum Ridge area. Completed in 1994, these sites would have been negatively affected by the construction of the Multi-Purpose Range Complex. Four mines/mining sites, located on or next to alluvial flats and accessible to tracked and motorized vehicle traffic during exercises, are scheduled for data recovery efforts. Four sites in close proximity to the ESB and EAF area of Deadman Dry Lake are scheduled for data recovery. These sites have the potential for being damaged and/or destroyed due to their close proximity to busy/high traffic areas.

Public interpretive efforts have focused on educating the military and civilian population of MCAGCC on the presence of significant cultural resources within their community. Outreach efforts include briefing all incoming CAX participants on cultural and natural resources concerns on MCAGCC and the importance of conserving these resources. Other public interpretive efforts include participation in National Historic Preservation Week; annual tours of the Foxtrot Petroglyph site as part of Native American Heritage Month; and regular articles regarding cultural resources in the Observation Post, the local base newspaper (Appendix C). Tours of the Foxtrot Petroglyph Site have been given to outside groups including the Action 29 Committee, a community awareness group and Pacific Coast Archeological Society. In 1996, the Native American Rock Art booklet, focusing on the rock art at the Foxtrot Site, was prepared and distributed to visitors to the petroglyph site. Additionally, the design of anodized aluminum signs focusing on the rock art at Foxtrot has been completed, with anticipated installation in the spring of 1997.

One major research initiative was implemented in 1996. As the installation has a number of toolstone quarry sites where Native Americans were acquiring high quality jaspers, a research project has been initiated in cooperation with the U.S. Geological Survey to chemically characterize the jaspers, to determine whether different sources areas have unique trace element characteristics. If this is the case, analysis of jasper debitage from various habitation sites will identify source acquisition areas and should clarify how prehistoric Native Americans moved across the landscape of the installation. The potential for this data to define the settlement systems operative in the desert is high and should make a major contribution to desert research.

Scientific investigations at MCAGCC have resulted in the accumulation of a large quantity survey and evaluation data the past two years. As the southern Mojave Desert is poorly known and little data are available for dissemination, MCAGCC has in conjunction with Sacramento State University, organized a symposium to be given at the Society for California Archeology meetings in the spring of 1997. Results from the Lavic Lake evaluations, the Wood Canyon studies, the Rock Art reintegration project, and various surveys will be presented to an audience of professional and avocational California archeologists.

## **Native American Program**

MCAGCC has completed an inventory to determine whether any items referenced under the Native American Graves Protection and Repatriation Act (NAGPRA) were present in existing collections. With a program that is still in development, MCAGCC had only four boxes of artifacts at the beginning of 1994. These resulted from investigations completed at the seven sites data recovered at the Multi-Purpose Range Complex and the evaluation efforts at the Surprise Springs. No human remains and no items of cultural patrimony were present. Four groups have been contacted and informed of the contents of the collections housed at MCAGCC. These included the San Manuel Band of Mission Indians, the Twentynine Palms Band of Mission Indians, the Colorado River Indian Tribes, and the Chemehuevi Tribal Council.

All reports generated over the past two years involving Native American sites have been filed with each group. In 1996, all four groups were contacted by telephone and asked whether they had specific issues on our base. No Sacred Sites or sites used for subsistence or ceremonial practices were identified. All four groups, however, indicated they wanted to participate in the consultation process. A meeting is planned among all four groups and the installation in early 1997, to work out the details of a consultation process to be followed in the future. The consultation process will become one of the elements of the Programmatic Agreement. Additionally, at the request of the San Manuel Band of Mission Indians, a tour of the Foxtrot Petroglyph Site was held in March 1997 is being arranged. At this time, the Native American communities have made no requests for access to the installation for purposes of religious ceremony, or procurement of natural resources.

## **Curation**

As of the end of 1996, MCAGCC has four boxes of artifacts to manage. With all of the evaluations and data recovery efforts contracted for in 1995 and 1996, many more boxes will be added to the collection. A number of efforts have been implemented to ensure the collections are properly curated. First, all contractors must submit collections to MCAGCC in containers that meet Federal curation requirements. Secondly, the Natural Resources and Environmental Affairs Directorate has received funding to construct a warehouse in Fiscal Year 1997. A large portion of the warehouse is to be set aside for a curatorial facility that meets Federal standards for curation. Additionally, Joshua Tree National Park is developing a Memorandum of Agreement (MOA) with MCAGCC to be able to accept collections from the installation for curation. The vision is to have the installation provide relatively short-termed curation for the collections, particularly during the period when ready access is a necessity. As the collections are completed, and the necessity for access is reduced, they will be transferred to Joshua Tree National Park for long-termed curation.

## **Cultural Resources Awareness and Education**

Cultural resources awareness and education for the Marines, family members, and civilian employees has been a primary goal of the cultural resources program at MCAGCC. Each year during Native American Heritage Month, a tour of the Foxtrot Petroglyph Site is scheduled for Marines, their families, and civilians aboard the base. For the past two years these have been very successful and appreciated events and there has been a marked increase in interest in the cultural resources of the installation.

The installation newspaper, the Observation Post, has published numerous articles regarding the Petroglyph Reintegration Project, the discovery of Lake Mojave and Pinto Period sites along the shoreline of Deadman Dry Lake, and other historic and prehistoric sites of interest aboard the installation.

Because the Foxtrot Petroglyph Site is the most well known archeological site on MCAGCC, the first efforts at cultural resources awareness and education focused on this important site. As the Foxtrot Petroglyph Site is marked on all installation maps, has received substantial publicity, and is the focal point of general public interest in archeology aboard MCAGCC, efforts to protect this site from vandalism in the form of graffiti were initiated early in 1995. One aspect of the program was to reintegrate the graffiti in an effort to remove the incentive to add more graffiti to the rock face. Another aspect was to develop a booklet on the Native American Rock Art at MCAGCC to distribute to Marines, their families, and civilians aboard to base to educate the MCAGCC community about the age, rarity, and importance of the Foxtrot Petroglyph Site.

## **Community Relations**

A number of diverse avenues has been taken to provide the public with information on the cultural resources preservation efforts on the installation. Marie Cottrell and Antoinette Padgett, rock art conservator, completed an article to be published in 1997 in CRM Magazine (published by the Department of the Interior) regarding the rock art reintegration project at Foxtrot Petroglyphs. CRM Magazine is a national publication that presents Cultural Resource Management information for Parks, Federal Agencies, Indian Tribes, State, Local Governments, and the Private Sector. Valerie Prehoda and Antoinette Padgett presented *Restoration of the Foxtrot petroglyph site* at the 1996 Desert Research Symposium, San Bernardino County Museum. Additionally, all reports prepared for MCAGCC are distributed to local interest groups, Native Americans, local universities and colleges, and other military installations in the area. Each year, the Earth Day celebrations highlight various cultural resources projects on the installation and MCAGCC observes Preservation Week in cooperation with the Twentynine Palms Historical Society and Joshua Tree National Park.

Marie Cottrell is a member of the Society for American Archeology, the Society for California Archeology, the Pacific Coast Archeological Society, and the Twentynine Palms Historical Society. She is also a member of the Paleontological, Archeological, Cultural Resources Action Team (PACRAT), a group formed to deal with cultural resources issues in the Mojave Desert. This group was chartered by the Desert Managers and plays an important role in the Mojave Desert Ecosystem Initiative. Ms. Cottrell is involved with research being conducted by the California Institute for Peruvian Studies and is currently preparing a report on the lithics analyses completed at the Pellejo Chico Alta site during the summer of 1996.

Valerie Prehoda is a member of the Twentynine Palms Historical Society and serves as the curator for the society's Old Schoolhouse Museum. She is a member of the Society for California Archeology and remains a site steward in the Arizona Site Steward Program. Her interest in historic mining sites has caused her to become a member of the 1st Class Gold Mining Club in Twentynine Palms. She is also tasked with organizing the annual Earth Day Celebration and MCAGCC's participation in Preservation Week.

## **Environmental Enhancement**

Articles in the Observation Post on various cultural resources projects aboard MCAGCC have raised interest in the archeology of the installation and the region. The Combat Center is the only Federal Agency in the southern Mojave Desert that has been able to implement an aggressive program of inventory and evaluation, and the results have contributed substantially to the clarification of the archeological record for the region. These data are available to neighboring agencies and contribute significantly to the regional database.

Annual tours to the Foxtrot Petroglyph site and other educational endeavors have raised the profile of the cultural resources on the installation. This has increased the MCAGCC community's appreciation of the richness and diversity present in the desert and hopefully make the installation appear a little less bleak.

## **Mission Enhancement**

The implementation of an cohesive and comprehensive cultural resources management program at MCAGCC that is integrated with the military mission has placed MCAGCC into a better situation with respect to the various cultural resources laws and regulations affecting compliance. Ratification of the Programmatic Agreement by the California SHPO, the Council and the Commanding General will bring the training mission at MCAGCC into compliance with the National Historic Preservation Act (NHPA). The protective measures enacted at various sites aboard the installation and the reintegration project at Foxtrot Petroglyph site have aided in complying with the Archeological Resources Protection Act (ARPA) and consultation with the Native American groups in

the region brings the Combat Center into compliance with the Native American Graves Protection and Repatriation Act (NAGPRA), NHPA, and ARPA.

Completion of in-house surveys for various projects aboard the installation have greatly assisted in NEPA compliance efforts and have saved MCAGCC time and money. It has also saved the installation from having to re-survey areas already surveyed per current standards.

## **Cultural Resources Compliance**

All cultural resources surveys completed for specific projects at MCAGCC are coordinated with the California SHPO. Where there is a no effect determination, the information is sent only to the California SHPO. Where there is a no adverse effect determination, information is sent to the California SHPO and copies of all correspondence is forwarded to the Advisory Council on Historic Preservation. Where there is a potential for adverse effect, the California SHPO and the Advisory Council are both consulted. In the case of the historic mines/mining sites aboard the installation, the Twentynine Palms Historical Society and the 1st Class Gold Mining Club are involved in the public review and are afforded the opportunity to comment. Almost all individual actions aboard the installation have been determined to have no effect and only informational data has been supplied to interested parties. The data recovery scheduled for the four mines/mining sites is currently in consultation with the Advisory Council and the local interest groups are informed, but have as yet provided no comments. The data recovery for the four sites along the shoreline of Deadman Dry Lake will be coordinated with California SHPO, the Advisory Council and Native American groups prior to implementation.

All projects that are not training related are coordinated with the California SHPO and the documentation and appropriate waiting periods for comment are strictly followed. All NEPA documentation is completed under the supervision of the Natural Resources and Environmental Affairs Directorate and the NEPA coordinator ensures all legal requirements are met. If archeological sites are involved with the project and redesign of the project to avoid significant properties cannot be accomplished, no action is approved until the consultation process is complete. A draft Programmatic Agreement has been forwarded to the California SHPO and Advisory Council to bring the military training aboard the base into compliance with Section 106 of the NHPA.

MCAGCC has programmed and budgeted for cultural resources investigations through the POM process (Table 1). Projects and funding were identified through the year 2003. In 1997, however, the results of prior years' investigations will be taken into account to modify the POM to be more efficient and sensitive to mission and resources needs and requirements.

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