

CRM

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Management Information for
Parks, Federal Agencies, Indian
Tribes, States, Local
Governments and the Private
Sector



U.S. Department of the Interior
National Park Service
Cultural Resources

Why We Preserve— How We Preserve: Commemorating the 50th Anniversary of World War II

James H. Charleton

A Call to Struggle

In an epic series of films, *Why We Fight*, Frank Capra brought World War II to the American home front and helped boost morale. Fifty years later, in commemorating the anniversary of the human race's closest approach to Armageddon, a paraphrase of his title seems appropriate as a slogan to spur efforts to preserve the historical legacy of World War II. But questions spring to mind. Why struggle to preserve this recent history? Where should limited resources for this purpose be channeled? Are the scale and complexity of the challenges adequately identified? Has there been serious thought about it?

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Casemated magazine at 8-inch gun battery of Fort Abercrombie, a subpost of Fort Greely, Alaska. This rear view shows the two entrances to a U-shaped passage. NPS photo by Erwin Thompson, 1983.

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Why We Preserve—How We Preserve: Commemorating the 50th Anniversary of World War II

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The answers to these questions are not simple because planning for the 50th anniversary of World War II is in progress. You, the readers of *CRM*, are in a position to influence and contribute to it. In addition to sharing information on projects already under way and wrestling with a few of the practical issues, preservation challenges, and interpretive prospects it presents, the authors of this issue invite you to join in discussing the appropriate themes and special opportunities of this anniversary era. The complexities involved permit only an illustrative selection of issues and topics.

The authors, however, will provoke your interest, for they offer up new perspectives on well-known issues and insights on why more obscure topics deserve attention. As historians, curators, archivists, archeologists, divers, interpreters and the like, we will significantly influence how the Nation "Remembers Pearl Harbor" far beyond the 50th anniversary era. Cynics, skeptics, and revisionists will probably suggest that national chauvinism and militarism will dominate these efforts and suggest that after the ceremonies there will be little to show. But this solemn occasion does offer the chance for a sober discussion as to how we can have a commemoration with enduring meaning as well as meaningful content.

Why We Preserve: A Unique Legacy

World War II's historical legacy is not like that of wars more distant in time. Like citizens generally, cultural resource management professionals, in addition to their official responsibility for the historical legacy of the Second World War, also almost all have a tie or link to it personally or through family members.

Thus, in simple terms, those in the wartime generation need no lessons in why this heritage must be honored and preserved. They know they owe it to their fallen comrades, if not to themselves. The post-war generation also must surely know that they owe it to the generation of their fathers and mothers—as well as to posterity, so that the meaning and lessons of the world's greatest conflict will not be lost.

Remembering Pearl Harbor at 50 Years—and Beyond

We are entering a commemorative period with a high national and international profile that will surge for Americans around December 7 of this year and conclude with the multiple anniversaries of the key events of 1945—of the United Nations Conference, which met in San Francisco's Civic Center in April-June 1945; of V-E Day (May 8, 1945, marking the surrender of Germany); of the atomic bomb attacks by the United States on Hiroshima and Nagasaki (August 6 and 9, 1945); of V-J Day (August 15, 1945) and the signing of the formal surrender document by Japan aboard the battleship *Missouri* in Tokyo Bay (September 2, 1945).

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Landing Ships Tank (LSTs), with pontoon, unloading at Scogliatti Beach, Italy, July 10, 1943. LSTs, carrying vehicles, tanks and heavy materiel, brought along pontoon causeways, across which they could unload on the shallow beaches. This was the first use of LSTs and pontoons in combat. Bureau of Aeronautics photo courtesy of Robert L. Clifford.

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This year's anniversary of Pearl Harbor will be marked by several days of memorial and commemorative events centered at the USS Arizona Memorial, building on a traditional morning ceremony that takes place every December 7. The anniversary events have been planned with the active participation of the U.S. Navy and state and local officials. The Secretaries of Interior and Defense have invited the President and First Lady and other national dignitaries to attend.

Thus, it can be anticipated that December 7, 1991, will be a "National Day of Prayer and Remembrance," with all eyes on Pearl Harbor. For that reason and because not every one can be in Honolulu—in fact only about 200 can be on the Memorial itself at one time—Pearl Harbor must also be honored elsewhere. For example, superintendents System-wide, especially those who administer national cemeteries, have been asked to make special acknowledgment of the occasion through appropriate modest ceremonies.

From Guam to Boston, the wartime legacy is reflected at many places, not just in the National Park System. Hence we must seek to influence, by planning and example, other agencies of government and private parties as well—not just the Service's charge at the few explicitly associated sites (the USS Arizona Memorial, War in the Pacific National Historical Park, and American Memorial Park on Saipan).

The poignant content of the ceremonies planned for these places suggests the need to focus on the management of the cemeteries in the System. John Tucker's article touches on how Service practice in this field evolved and also highlights the activities by and on behalf of former American prisoners of war at Andersonville National Historic Site.

Thus, commemoration will not be truly valuable unless its lessons and spirit are carried beyond Hawaii and beyond the events of December 7, 1991, no matter how moving or memorable they may be. It is for that reason that all the content articles appearing in this issue, rather than focusing on the anniversary of Pearl Harbor, discuss various cultural resource management issues and problems that deserve attention in the entire 1991-95 anniversary period and, indeed, long beyond that time.

Honoring "Old Soldiers" as They Fade Away

The immediate task is to provide a respectful and dignified memorial tribute to the fallen heroes of the conflict and to their living brethren. That is why, for example, this December 7, a measure of priority access will be given to survivors, veterans, and their next of kin at the official ceremonies at the USS Arizona Memorial and its visitor center.

But a more enduring tribute to the "old soldiers" can derive from paying attention to the fact that those few survivors who will be around for the 75th anniversary will be historical curiosities. For now they

are a historical treasure slipping away from us with the calendar, an irreplaceable resource for the long-term mission of fully, carefully, and memorably recording the deeds and lessons of history's greatest conflict.



Maritime skills and wartime memories both seem etched in this "old sailor's" face aboard the Liberty Ship Jeremiah O'Brien at the National Maritime Museum, Golden Gate National Recreation Area. NPS photo by Richard Frear.

Accordingly, now is the time to interview them and put them on the programs of symposia—as the USS Arizona Memorial Museum Association, the cooperating association at the memorial, is doing in a program of interviews and at a symposium jointly sponsored by the National Park Service and the Naval Historical Center in Honolulu beginning this December 8. These activities supplement the on-going use of Pearl Harbor survivors who are volunteers at the Arizona Memorial visitor center, assisting memorial staff by providing interpretive talks on their experiences. Also, the key participants in the ceremonies will be invited to record their personal reflections for posterity. This recording of history in the making is novel, but necessary. There are no similar records for comparable anniversaries.

It's also time to arrange to receive the veterans' memorabilia and collect their papers to turn their experiences into the historical collections and exhibits that will form the museums and archives and generate the historical studies of the next millennium. That is why contact with veterans and veterans organizations has been and will be very important in the development of these plans.

Memorials to the War

What is notable about World War II is that, aside from the Iwo Jima or Marine Corps Memorial, there

is no traditional national memorial to the Second World War. A major challenge for the Service will be to respond in a meaningful way to the World War II Memorial bill that has been proposed in Congress recently and similar ones that will no doubt crop up during the anniversary era, without letting them divert mightily from other cultural resource preservation activities—the preservation of at least some of the numerous beaches, landing grounds, battle sites, naval vessels, military bases with all their various structures (including quonset huts), cemeteries, and artifacts that remain from the 1940s—most of them far removed from the monumental core of Washington—and which are today among the most threatened of cultural resources, precisely because they are not generally recognized, inventoried, or protected. One way to achieve a focus on preservation is to draw attention, as through these articles, on the dimensions of the challenges.

The National Park Service has traditionally concerned itself with the preservation of the physical remains of great events. Although there are only a handful of properties in the National Park System that relate directly to the war, in recent years we have conducted studies that begin to address the need for preserving those the Service does not and will not administer.

National Historic Landmark studies have dealt, though not comprehensively, with key bases and battle sites on the West Coast, in Alaska, Hawaii, and the Pacific islands that are under U.S. or related jurisdictions—as well as Japanese-American internment camps—and a succession of National Historic Landmark studies of naval vessels, such as Dr. Harry Butowsky's "Warships in the Pacific." (The latter has been discussed in a previous issue of CRM, Vol. 8, No. 5.)

If the patterns of recent years are followed, there is a real prospect that some of these properties will be selected for the System. The Presidio of San Francisco is a prime example of one that already has been. Authors D. Colt Denfeld and Michael S. Binder point out the large challenge that faces the Armed Services in cultural resource management of the properties currently under military jurisdiction. Can we think about—and encourage others to think of—these resources as appropriate alternatives to traditional memorials?

The model for and the finest of these, the property that is really a world-class memorial—at once historic vessel, tomb, and memorial—the USS Arizona Memorial—is administered by the Service in cooperation with the U.S. Navy. Working with the Navy to make her ready for the commemoration has been one of the Service's major goals. Badly needed capital improvements and new interpretive measures have been completed or are in preparation.

"Learning" to Remember

An important step taken recently in regard to the USS Arizona Memorial is the recently completed Submerged Cultural Resources report on *Arizona*, discussed by Dan Lenihan in his article, which describes how the Service set out to learn for the first time with precision what remained of *Arizona* and to analyze how she might best be preserved, while properly respecting her entombed heroes.

But we need not only to preserve *Arizona*, but to understand how we view her. In that regard, Dr. Roger Kelly's "Arizona and Other Icons" analyzes how peoples view properties so central to their na-

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Bridging the sunken U.S.S. *Arizona*, the namesake memorial honors her dead, those names are inscribed on the interior walls. Alfred Preis, an Austrian interned in Hawaii after Pearl Harbor, afterward became a U.S. citizen and designed the memorial. NPS photo courtesy USS Arizona Memorial.

(continued from page 5)

tional historical experiences. Dan Martinez, the Memorial's historian, takes another tack altogether, showing the value of historic views—both American and Japanese—for understanding more completely what happened on that grim December day a half-century ago.

With all the attention focused on Hawaii this December 7, there has been a likelihood that the only portion of North America invaded by the Axis will be overlooked—the wet, cold, lonely, and isolated outer islands of the Aleutians, thousands of miles north of Pearl Harbor across the empty North Pacific, which were the scene of a virtually forgotten campaign against Japanese invaders. Bill Brown's article reminds us of the agonies of this struggle and the special problems of preservation in that state of vast distances. Michael Auer's summary assessment of certain National Historic Landmarks in Alaska that are associated with World War II presents a sobering picture of preservation challenges and decisions that cannot be long deferred.

The challenges of preserving World War II heritage are not only spread all over the map of the world. They come in all shapes and sizes. Some elements of that heritage are portable. The maritime heritage of the war is especially notable. In his article, Michael Nabb gives a succinct summary of the state of maritime preservation and somewhat surprisingly informs us that World War II heritage makes up a major part

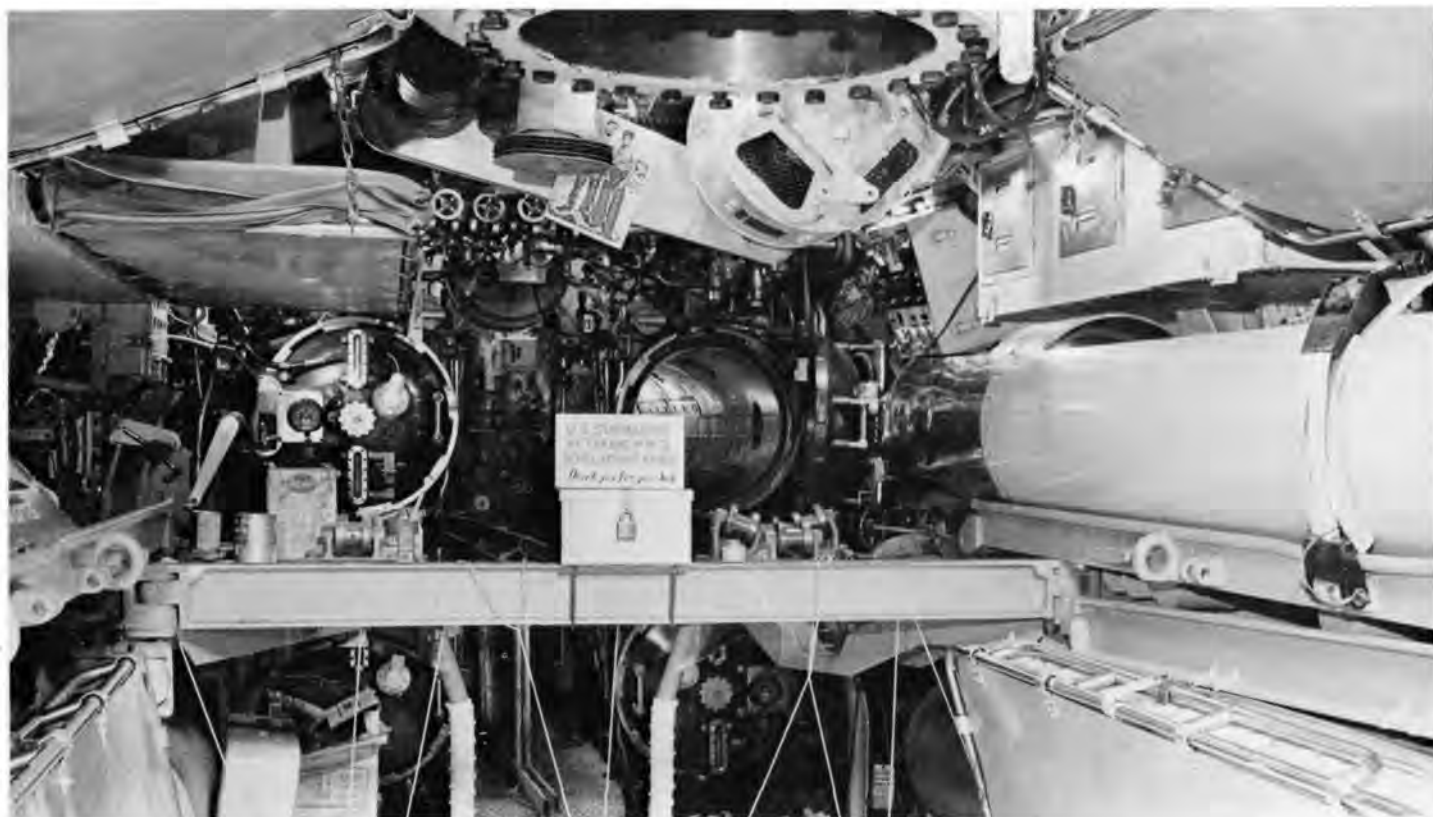
of the preserved ship collection of the Nation. But he also points to the various burdens and challenges—financial, technological, and otherwise—that this presents.

Jim Delgado, formerly the Service's maritime historian, presents the novel but not well remembered saga of the Japanese midget submarines that attacked Pearl Harbor—it is well to remember that the attack was not just from the air—and traces how this war prize helped spur the American war effort. Alluding to the controversy over the fate of this surviving artifact of the attack, he explains why and how the Service has determined it is appropriate to return the vessel to Hawaii.

A National Emphasis?

In reviewing the cultural resources management balance sheet on World War II commemoration, some unsettling trends and important unanswered questions remain. It is clear that there is not yet a comprehensive national plan for the commemoration. Legislative efforts have been piecemeal; there is, for example, no counterpart to the recent Civil War initiative, and there is little funding or program emphasis in most agencies, even the military.

A coordinating committee established by the National Archives is providing a forum on the status of World War II commemoration efforts nationally. The Defense Department has also established an office that provides another important point of reference for these activities. The Veterans' Affairs Department—as the administrator of most World War II veterans cemeteries—and veterans organizations also have a



The cramped quarters aboard the submarine U.S.S. *Becuna* are remarkably preserved. NPS photo.



The guardhouse at Manzanar Japanese-American Internment Camp, California. Photo by Erwin Thompson, 1983.

logical role to play. And all agencies are under the mandate of the National Historic Preservation Act to survey their historic resources. Other agencies, however, look to the Service for leadership and advice in determining what resources merit consideration in the planning process, listing in the National Register, designation as National Historic Landmarks, measuring by HABS, etc.

An International Heritage?

The Nation is also inadequately prepared to address the international aspect of this commemoration. Profound sensitivities need to be addressed and there is merit to sharing the experiences of Service staff in dealing with such issues. Many of our dead rest in foreign cemeteries and waters. We also don't know the fate of many of our prisoners of war and missing in action from World War II. But rather than focus on that aspect, Jake Hoffman adds a converse and hitherto extremely obscure dimension to the issue, with his thought-provoking discussion of the prisoner-of-war camps in the United States in which Axis prisoners were confined. Yet another challenge in deciding how fully and frankly the war's heritage should be preserved!

Domestic actions also have international implications that need to be considered. Even small decisions have been controversial. Thus, when a Japanese airman's uniform was accepted for interpretive display at the Arizona Memorial visitor center in Honolulu—which is about a mile across open water from the Memorial—the Service received protest mail. Never mind the need to instruct generations yet unborn on what the enemy looked like!

The issue of possible Japanese participation in the 50th anniversary ceremony at Pearl Harbor has attracted extensive discussion, both in the U.S. and Japan. The State Department's decision that the event should be a domestic American memorial service and

to look beyond the anniversary in Japanese-American relations has settled the issue, but not silenced the debate over whether we should ignore the question. As one observer put it: Do we look backward merely to look backward—or must we look backward in order to look forward? All that is clear is that all actions dealing with the 50th anniversary must be addressed with one eye on their international implications.

Why We Preserve? How We Preserve?

Writing before it is known how the events of December 7, 1991, will play out, speculation about the anniversary and about the intensity and meaning of the Nation's commitment to "Remember Pearl Harbor" must remain. Will the commemoration have meaningful content and enduring meaning that will spur preservation efforts? Will it conclude on a note of amity and respect that at least partially reconciles America with Japan and the '40s generation with their children? In other words, can we look both backward and forward?

One thing is inevitable. When the oratory is over and the symposia have ended, the men of *Arizona*—emblematic of those who rest on land and at sea in a thousand places—will still be in their watery grave, and the men and women of the Service, sharing a special responsibility, will still need to guard and explain that tomb of our honored dead. May December 7, 1991, be the day that lives in memory, inspiring the Nation to carry forward the important task of protecting the heritage of all those who endured, suffered, and died! We should, therefore, be determined and confident in knowing why we preserve. Let us strive to be as competent and far-seeing in devising how we do so.

James H. Charleton, a historian in the History Division, NPS, served in the U.S. Navy in Viet Nam. He coordinated this issue of *CRM* and was guest editor.

USS *Arizona* Project

Dan Lenihan

Soon after he became superintendent of the USS *Arizona* Memorial in 1980, Gary Cummins determined that an underwater survey would be necessary to fully understand the nature of the site and to define a strategy for long-term management. A diver himself, Gary believed questionable the conventional wisdom that the ship was too dangerous to work on, and the visibility too compromised by murky water for any meaningful results to be achieved. He contacted the Service's underwater archeological team, the Submerged Cultural Resources Unit (SCRU), and asked for help.

In 1983 the SCRU, in association with a contingent of U.S. Navy divers, spent a week reconnoitering the ship and devising a plan for a full-blown mapping and photodocumentation effort. During this first session on the site, it became clear to the researchers that working on the USS *Arizona* would be like nothing they had ever tackled before. Besides the technical problems of mapping an object three times the size of the Statue of Liberty when water visibility was only six feet, there was no escaping the fact that one

would be operating on hallowed ground. With the remains of more than 1,000 servicemen still entombed, the rusted hulk of the ship is more than an archeological site—it is an American shrine—one that is visited by 5,000 people a day and that affects visitors and researchers like no other shipwreck ever has, nor hopefully, ever will.

Just before beginning their survey the SCRU team had one of the new color home-video systems that were just beginning to become popular at the time, placed in an underwater housing. Even more impressive than its effectiveness in obtaining complicated data from cloudy water was its effect on the public. Local Honolulu TV stations asked Gary for the tapes and he obligingly let them dub the material for broadcasts. For 10 days the dive team reviewed its data tape by flipping the TV channels in their motel room. Dan Rather spoke with the muzzles of the 14" guns panning by on the screen behind him and ABC "20/20" soon had a segment for its viewing audience; this was no ordinary shipwreck, no ordinary job.

In 1984 the SCRU returned to the site for a three-week intensive project. The park staff had by this time developed a proficient dive team of its own. They worked tirelessly with the specialists from Santa Fe on the task of resurrecting a true image of *Arizona*, savaged by Japanese bombs and U.S. Navy cutting torches, from her watery grave. The non-divers on the park staff seemed as involved as the divers, finding any way they could to ensure success in myriad support roles. Pearl Harbor survivors and veteran Navy salvage officers helped the archeologists identify the artifacts of war which were often only partially visible on the silt-covered remains of the deck.

Painstakingly the ship took shape on paper, underwater cameras clicked and underwater videos hummed. NPS and Navy divers were spending four hours a day on the bottom of the harbor and illustrators frantically prepared new data sheets for the wet hands which always seemed to be impatiently waiting. More than 70 air cylinders on some days were hauled along the small floating dock for use by the divers.

The end product made it all worth it. The nondescript pieces of metal that protruded from the silt under the memorial became comprehensible to managers and visitors alike. There is much more to managing a memorial than accumulating data, but ignorance is a poor foundation for making sound decisions. Gary Cummins recognized this and left a park in which the resource was much better understood than it was the day he arrived. Bill Dickinson followed as superintendent of the memorial. Needing no convincing as to the worth of the research, Bill picked up the ball without missing a stride.

The summer of 1986 saw the SCRU team back in Pearl with a contingent of 40 Navy reservists sent from Long Beach, CA to contribute their efforts to the study. Dickinson was now satisfied that he knew what was down there but he wanted to know what was happening to it. A specialist in biofouling from the Naval Ocean Systems Center joined the action this time and soon there were Latin names attached to the once nondescript crust of sharp molluscs,



U.S.S. *Arizona*, a child of the First World War, heads down the East River in New York City on her way to sea trials in 1918, oblivious of the cruel fate that would make her the symbol of America's entrance into the second universal conflict of the 20th century. NPS photo courtesy U.S.S. *Arizona* Memorial.



Park rangers Farley Watanabe (l) and Mark Senning (r) preparing for research dives on U.S.S. Arizona in 1984. NPS photo.



NPS and U.S. Navy divers performing one of hundreds of mapping dives that took place on U.S.S. Arizona under the direction of the Submerged Cultural Resources Unit of NPS. NPS photo by Larry Murphy.

stinging nettles, and tube worms that blanketed the ship. An important piece of the puzzle in understanding the deterioration of the ship was now provided.

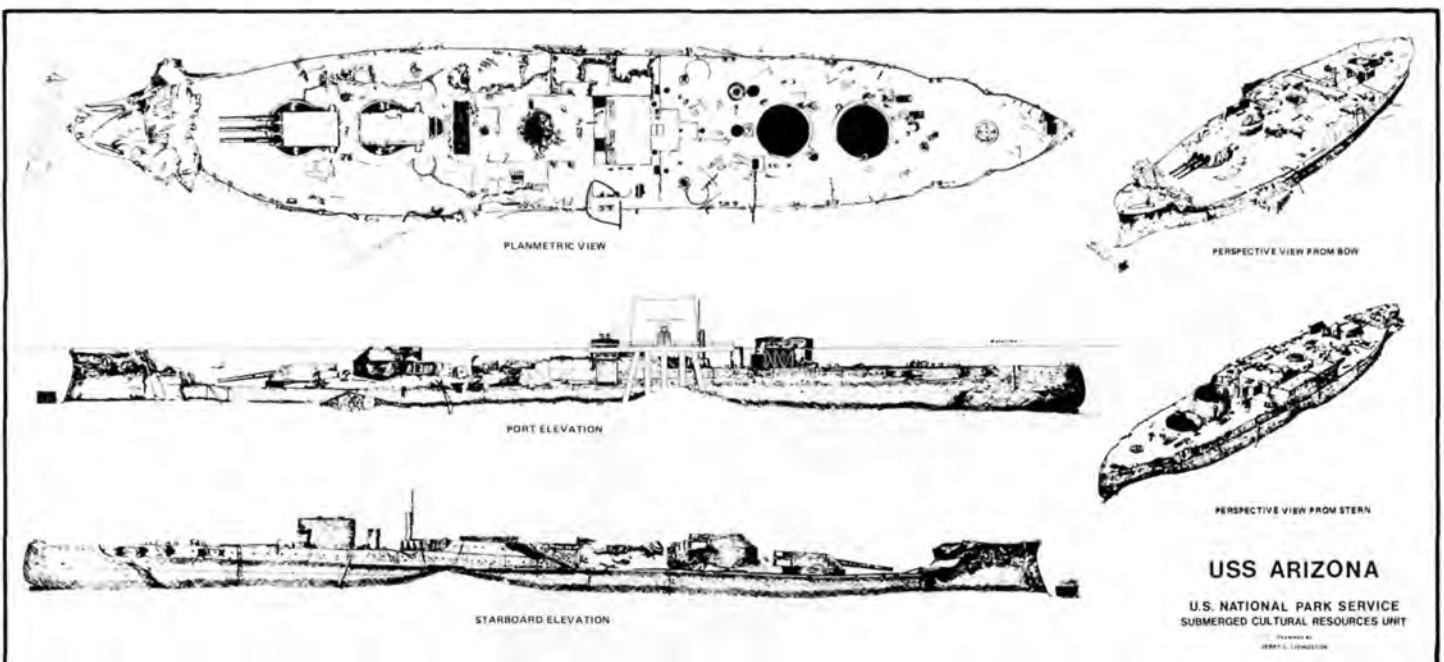
As the 50th commemorative of the attack on Pearl Harbor approaches, the significance of *Arizona* needs no heralds. What is less obvious to all but a few is the importance of the lessons learned from the last decade as an agency experienced in the management of cultural resources. In 1981 the survey of USS *Arizona* was a gleam in Superintendent Cummins' eye. Now, in 1991, Superintendent Don Magee is preparing for one of the most intense public events the NPS will ever handle. But when he walks through his visitor center, he looks over his shoulder at detailed line drawings of the ship and a scale model of her as she lies on the harbor bottom. In his office are detailed records of the composition of the biofouling crust and potentials for corrosion.

There is no doubt that Don will be in the eye of his own personal storm this December 7 but he will be

there armed with a corporate knowledge that he will, in turn, contribute to, and pass on. None of us alive today are unaffected by what happened on the island of Oahu over a period of several hours on Dec. 7, 1941. Preserving relics of the past such as *Arizona* allow us to "touch" our roots in ways we never could from perusing a history book. The use of archeology, history, historic rendering and a host of other preservation sciences to manage the fabric of the past (as in the case of USS *Arizona*) is known as cultural resources management. It is an art form practiced on an agency level.

If, by some chance, the greater social consequences of working in historic preservation were never apparent to you before—look at the faces on your TV screen this December 7. You'll see it's a serious business, this CRM.

Dan Lenihan is chief, Submerged Cultural Resources Unit, National Park Service.



Drawings by Jerry L. Livingston, based on underwater mapping done in 1984.

The Japanese Midget Submarine *HA-19*: A Unique Artifact that Helps Us "Remember Pearl Harbor"

James P. Delgado

The midget submarine *HA-19*, a prize of war at Pearl Harbor, on December 8, 1941, and for 24 years an exhibit of the Key West Art and Historical Association at the Key West Lighthouse Museum in Florida, was recently indefinitely loaned to the National Park Service by its owners, the United States Navy. Currently on short-term loan to the Admiral Nimitz State Historic Park and Museum of the Pacific War in Fredericksburg, TX, it is planned that the tiny 40-ton craft will be shipped to Pearl Harbor in 1992. There the submarine, which achieved international notoriety for its part in the events of December 7, 1941, will be stabilized, restored, and publicly displayed at the USS Arizona Memorial Visitor Center. It is a move that has been attended by controversy and internal debate as to its appropriateness. Some have viewed *HA-19*

as too provocative, a seeming memorial to the Japanese attackers. These arguments overlook the true significance of the vessel as an artifact. They also belie the need of the National Park Service to draw from every available artifact and memory of December 7, 1941, to better understand and explain why and how the attack on the United States Pacific Fleet unfolded, as well as its aftermath.

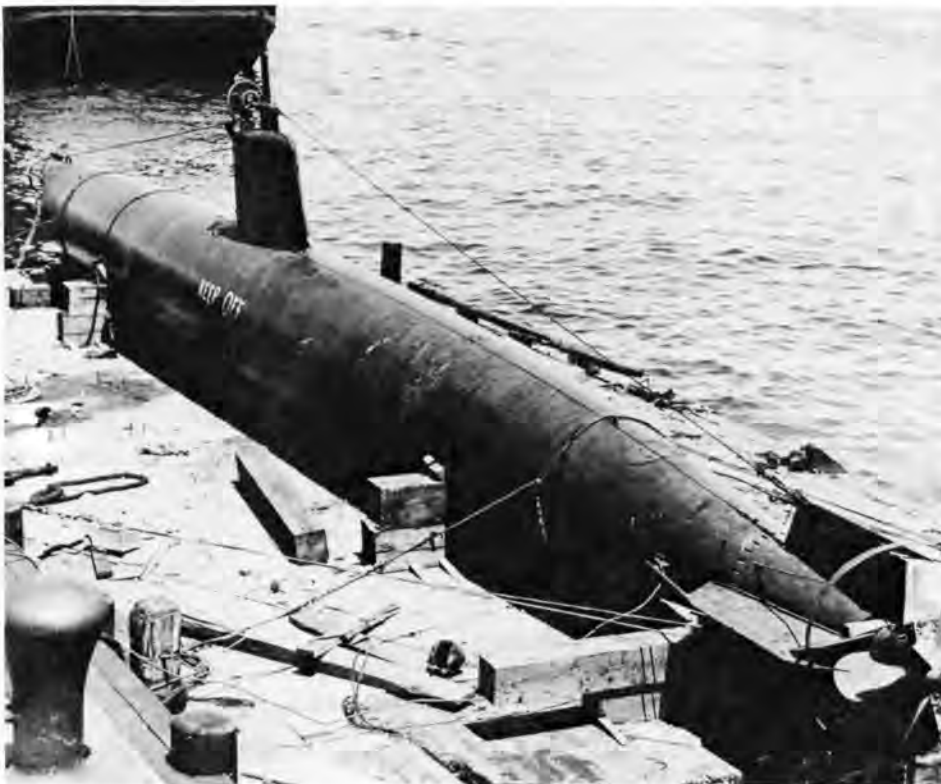
HA-19 is a unique vessel significant to both the history of Japan and the United States. Built as part of Japan's expansion of her armed forces in the 1930s, *HA-19* was one of five midget submarines whose crews were hastily trained and sent to participate in the surprise assault on Pearl Harbor by the Imperial Japanese Navy. Deployed in the early morning hours of December 7, the midgets were to stealthily enter the harbor and attack when the carrier-based planes struck. An hour before the attack began, however, one of the midgets was discovered and sunk off the harbor entrance by the destroyer USS *Ward*. It was the first confirmed kill of the United States Navy in the Second World War. Another midget was shelled, rammed, and depth-charged inside the harbor during the attack. Two others vanished and were lost with all hands. Only *HA-19* survived, because Ensign Sakamaki failed to penetrate the defenses and his hapless submarine washed ashore near Bellow's Field on the northeast shore of Oahu on December 8.

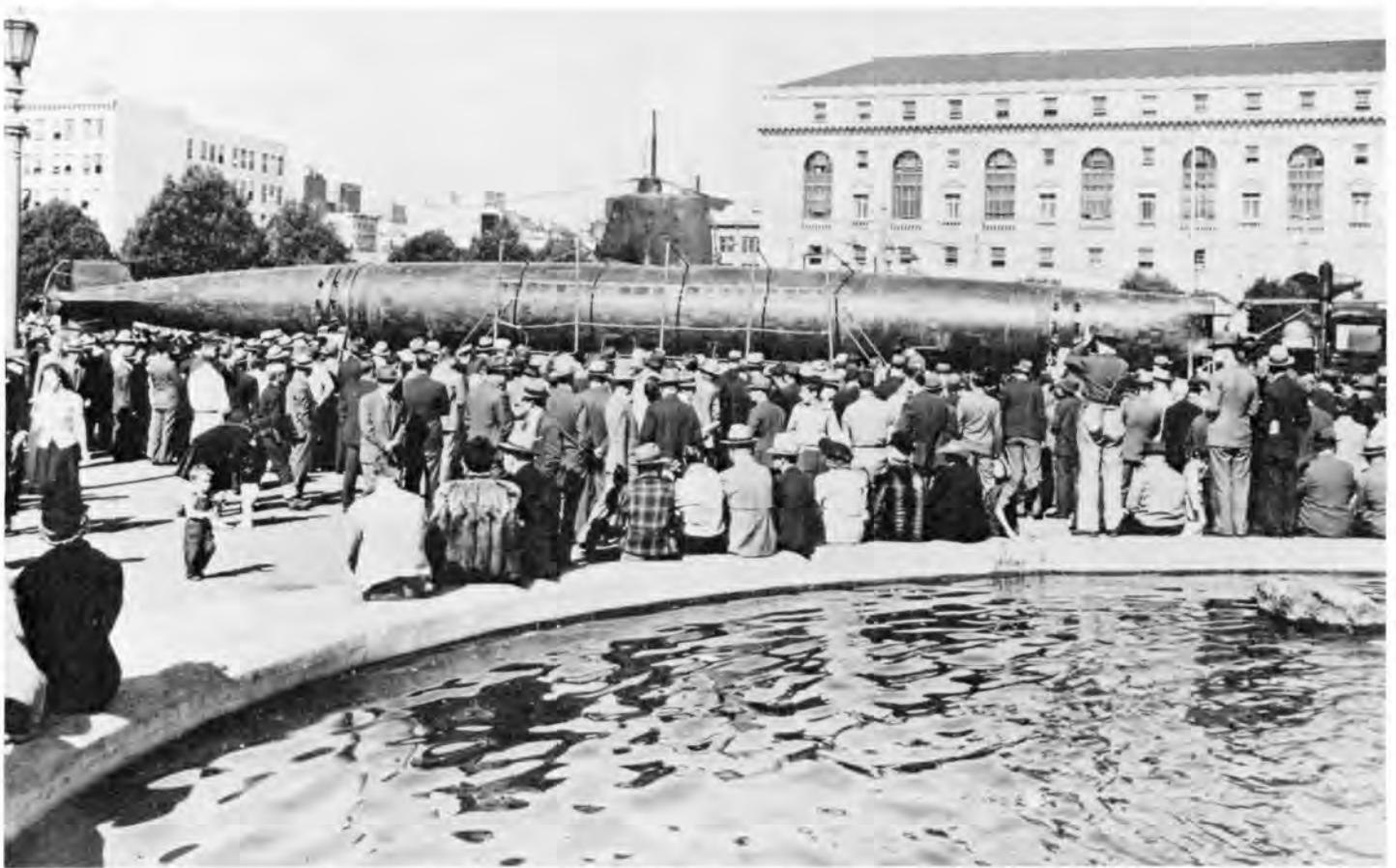
After being hauled ashore and studied, which included dismantling the 80-foot-long craft, *HA-19* was shipped to the mainland for War Bond tours in January 1942. It ended the war after a 2,000-city tour, in Chicago. Shipped to Key West, FL, in 1947, it remained there until March 1991. It is due to leave Fredericksburg, TX, in March 1992 when it will make its next journey back to Pearl Harbor.

HA-19's return to Pearl Harbor was sought by the Arizona Memorial staff, notably former superintendents Gary Cummins and Bill Dickenson, park historian Daniel Martinez, chief historian Edwin Bearss, and the author, then the Service's maritime historian, not only because of its role in the attack, but more importantly because that role transformed it into a symbolically laden significant artifact.

Mounted on a trailer and modified for public display, the midget submarine toured the United States in 1942-1945 as a promotion for war bond sales. Admission to the "Japanese suicide" submarine was secured by the purchase of war bonds and war stamps. The war bond drives were an integral part of

HA-19, the Japanese midget submarine that was America's first prize of war, captured December 8, 1941, off Bellows Field, Oahu, shown here awaiting shipment to the U.S. mainland. Photo courtesy U.S. Navy.





HA-19 on display in San Francisco's Civic Center Plaza on Navy Day in 1942. HA-19 helped spur War Bond drives and military recruiting efforts. Photo courtesy U.S. Navy.

the Nation's effort to win the conflict and were a marked aspect of life in the United States during the war years. The war bond drives were major campaigns "in which just about every promotional stunt the combined brains of Madison Avenue, Hollywood and the Treasury Department's War Finance Division—plus hundreds of thousands of local drive chairmen—could dream up was employed." [1] HA-19 was employed for such stunts—including the enlistment of Chinese-American naval recruits in San Francisco on Navy Day in January 1942.

More importantly, however, the captured midget was a potent symbol "of that government which had caused the death and destruction attendant to America's entry into World War II...it helped perpetuate the electrifying phrase, 'Remember Pearl Harbor.'" [2] The midget submarine, a seeming "epitome of the Japanese preoccupation with smallness and precision—the mechanical counterpart of a bonsai tree," was also a potent symbol of Japanese perfidy and American rage at a "little people" who presumed to attack "a white giant." "People here are wild at the insolence of the 'little Japs,'" wrote one correspondent at the end of 1941. The concept of littleness remained a preoccupation and means of belittling the enemy for many Americans, a concept supported by editorials such as *Time* magazine's December 30, 1941, statement that the Japanese, "big only in their fury..." were advancing down Malaya "in miniature scale," using "tiny one-man tanks and

two-gun carriers. The British even said that their doctors cut miniature Japanese bullets out of miniature British wounds." [3] The disclosure of the role of the midget submarines two weeks after Pearl Harbor and the national tour of HA-19 was another part of this unique sociological aspect of the war as seen in America. It reinforced America's concept of the enemy and the Pearl Harbor attack.

The display of HA-19 at the Arizona Memorial visitor center, with the midget restored to its War Bond appearance, will allow the National Park Service to use HA-19, with selected photographs and smaller artifacts, to graphically describe the little-known role of the midgets in the attack. There may be satisfaction in such a display for some who protested its return to Pearl Harbor if HA-19 reinforces the fact that the first blood drawn was Japanese. If not, then the capture of Sakamaki, reinforced not only by his vessel, but by his arrest card and his sword, if they can be procured from the institutions that now hold them, will serve as a reminder of one small American victory in that dark hour for the United States. Those who see the submarine as a focal point for such sentiments, however, have limited vision. HA-19, restored as a prize of war, is a telling piece of material evidence of the sentiments of that time and place in history, sentiments that live on in this anniversary year of that great and terrible day of December 7, 1941.

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The Japanese Midget Submarine HA-19: A Unique Artifact that Helps Us "Remember Pearl Harbor"

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James Delgado is executive director of the Vancouver Maritime Museum in Vancouver, Canada.

NOTES

¹Richard R. Lingeman, *Don't You Know There's A War On? The American Home Front, 1941-1945* (New York: G.P. Putnam's Sons, 1970), p. 296. Also see Jarvis M. Morse,

Paying for a World War: The United States Financing of World War II (Washington, DC: Government Printing Office, 1971); pp. 214-215; and Laurence M. Olney, *The War Bond Story* (Washington, DC: Government Printing Office, 1971), p. 53.

²Lt. Cmdr. A.J. Stewart, "Those Mysterious Midgets," *U.S. Naval Institute Proceedings*, December 1974, p. 61.

³John W. Dower, *War Without Mercy: Race and Power in the Pacific War* (New York: Pantheon Books, 1986), pp. 110-111.

The Condition and Appearance of HA-19

Upon its capture on December 8, 1941, the submarine was examined and found to be damaged as a result of several groundings. This included damage to the rudders, torpedoes, propellers, and the bow torpedo guard. Other than this, the vessel was in good condition and was hauled ashore, dismantled, and subjected to exhaustive documentation by the U.S. Navy. The vessel was then reassembled to be an exhibit without its motor, ballast, batteries, armament, and most of the equipment. Outfitted with "dummy" wood and sheet metal air tanks and equipment, sheet metal cones to simulate the torpedo warheads, and with U.S. Navy-issue electrical light fixtures added to illuminate the interior, a mounting pad welded to the bottom, and 6-inch wide, 6-foot long "windows" for viewing cut into the hull and covered with plexiglass, the submarine, complete with two mannequins dressed as the crew, was mounted atop a trailer and toured the United States.

In 1947, following the submarine's transfer to the U.S. Submarine Base at Key West, the viewing windows were blanked with welded filler plates. The

submarine was then displayed in a corrosive salt-air environment in the Florida Keys. As a result, serious localized corrosion on the exterior and lower interior of the hull has resulted. Nonetheless, an April 1988 professional marine survey of the submarine summarized its condition as "fair," with ultrasonic testing finding no weakened or failed structural welds or mechanical joints and a loss of less than 10% of hull plate original thickness.

The survey noted most of the original equipment is no longer present. Yet, while no longer possessing all of the equipment and the armament with which its crew intended to attack the United States Fleet at Pearl Harbor as part of Japan's "Hawaii Operation" on December 7, 1941, HA-19 retains its basic integrity of design and form. The interior, modified during WWII by the U.S. Navy, retains the "dummy equipment" and lighting fixtures installed for public exhibition, and the hull penetrations for viewing, now blanked, also remain. The vessel possesses a high level of integrity to its 1942-1945 configuration as a touring prize vessel used to sell war bonds.



HA-19, currently on display at the Nimitz Museum, in Fredericksburg, Texas. NPS photo by James Delgado, 1991.

Forgotten Chapters of a War

William E. Brown

The World War II campaign in Alaska's Aleutian Islands illustrates three cardinal facts: the role of emotion in war, the strategic inevitability of U.S. victory in the war with Japan, the fierce tenacity of fighting men on both sides.

American war planners viewed Japan's occupation of the westernmost Aleutians as an irritant at most, as well as a military dead end of isolation and bad weather for the Japanese. Originally conceived as a feint to screen Japan's lunge at Midway in June 1942, Japanese aerial attacks on Dutch Harbor and troop landings on Attu and Kiska were meant by Japanese planners to be quick strikes and withdrawals. But pride motivated both sides to a long and draining struggle in one of the world's least inviting environments. For both sides, down deep, it was the emotional impact of a Japanese lodgment on a part of North America that drove the respective war machines, despite objective strategies to the contrary.

The Aleutian chain stretches more than a thousand miles in a great arc from Alaska's southwest extremity toward Siberia. In most places its treeless volcanic islands plunge from mountain tops to sea with scarce a break in slope. Wet and soggy tundra dominates the slopes and the rare patches of level ground. At the boundary of warm Pacific and cold polar air, the chain gives birth to North America's westerly storm systems. Fog, rain, snow, and blasting winds beset the islands and churn the seas. For airmen, sailors, and slogging riflemen it was a cold and miserable hell where planes and ships disappeared without trace and exposure wiped out whole companies. Supply of these unfortunates across stormy seas and fogbound skies was sporadic and dangerous. Fighting came at the farthest end of those supply lines, at the uttermost margins of fatigue and abandonment. It was not a good place to have a war.

This isolated campaign skewed the overall Allied strategic doctrine that called for defeat of the more dangerous Germany first, then concentration on Japan. The Island Empire had struck hard and far, but it lacked the raw materials and staying power of Germany, whose conquests commanded an industrialized continent.

From the beginning of the Aleutian campaign Japan's strategic vulnerability foreshadowed eviction a year later. Short of heavy equipment, Japanese engineers resorted to hand labor to complete airstrips, which were only marginally operational. Only grudgingly did Japanese commanders in more active war zones allow diversion of shipping to the Aleutian outposts. Those resupply convoys that did sail suffered from U.S. air, submarine, and surface-fleet interdiction. Losses mounted. As U.S. submarines, finally



Seventh Infantry Division troops landing at Massacre Bay, Attu, May 1943. Japanese defenders, hidden above the fog line, exacted a heavy toll. Photo courtesy Elmendorf Air Base, Alaska.

equipped with lethal torpedoes, increased in numbers and aggressiveness, the general destruction of Japanese merchant shipping threatened to isolate Japan's entire defensive perimeter, which stretched more than 5,000 miles from the Aleutians to the Solomons and New Guinea. These ship losses would reduce Aleutian resupply to quick dashes in and out by fast warships, such as destroyers, which could haul only limited ammunition and iron rations. Thus, toward the end, Japanese forces could maintain only a survivalist defense.

Meanwhile, the United States poured troops and equipment and civilian construction battalions into Alaska by the hundreds of thousands. While Japan's troops approached starvation on Attu and Kiska, U.S. Army Engineers completed the Alcan Highway across Canada to Alaska—an immense project equivalent to the later Alaska pipeline. Military bases and coastal defenses begun in 1940—many of them still tent camps in the mud on Pearl Harbor day—were rushed to minimal operational status by the time of Japan's Aleutian assault. Dutch Harbor, at the east end of the island chain, formed the outer bastion of the U.S. defensive line. Here, quickly assembled forces and planes operating from nearby temporary airstrips absorbed and then repulsed the June 1942 air attacks by Japanese carrier planes. These attacks, quickly followed by landings on the far western islands, prompted major expansion and acceleration of military construction spread over several islands. Dutch Harbor and its associated installations became a citadel of naval, air, and ground bases protected by massive coastal defense fortifications. These multi-storied concrete gun emplacements, observation posts, and ammunition bunkers still command the Dutch Harbor landscape.

For a short time the Dutch Harbor complex served as operational base for air/sea patrols and attacks against the Japanese in the western Aleutians. Then began the immense engineering and logistical effort

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Forgotten Chapters of a War

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that leapfrogged the islands hundreds of miles at a jump to get U.S. forces close enough to smother Japanese supply lines, disrupt their base-construction efforts, and, later, soften up their defenses for invasion. With the lightning-swift completion of the Adak bases (a temporary airstrip in diked tidelands—the only flat ground—became operational in hours), operations shifted westward nearly 500 miles. With this shift Dutch Harbor became a great industrial, supply, hospital, and replacement depot. This phase of construction and activity dwarfed the earlier, purely military phase. Facilities such as Fort Glenn on Umnak Island (60 miles west of Dutch Harbor) spread over scores of square miles. Vast repair shops kept war equipment rolling, flying, and sailing. Permanent airfields and huge fuel dumps funnelled air cargo, troops, and combat aircraft westward. Final training occurred here before units moved out to Adak and the smaller bases beyond that tightened the noose around Attu and Kiska. To the hospitals returned the wounded, the frostbitten, the injured—the human debris of a punishing campaign.

The May 1943 invasion of Attu by the U.S. 7th Infantry Division and attached units bypassed the main Japanese force at Kiska. Outnumbered and outgunned, the Japanese troops on Attu abandoned their lowland camps for the high valleys and ridges where their small-arms defense could be prolonged in dispersed actions against U.S. infantry detachments forced to probe the rough and fogbound terrain from below. For a time this tactic equalized the Americans' greater numbers and heavy ordnance, including naval guns. Air support, dependent on good weather, was sporadic. These factors forced scores of bloody, small-scale infantry actions marked by flanking movements and desperate dashes for high-ground advantage. Deep snow and freezing temperatures abetted by storm winds punished both sides. U.S. troops, deficient in arctic gear, lacked insulated and water-



Soviet airmen prepare a Lend-Lease A-20 for the flight home from Ladd Field, probably late in 1942. Photo courtesy Smithsonian Institution and U.S. Air Force.



Russian pilots liked the A-20 Havoc attack bombers, for their nose cannon were effective against German tanks. American pilots flew these planes, already marked with the Soviet Red Star, to Alaska, where they were turned over to Soviet pilots. Note construction at Ladd Field, Alaska, in background. Photo courtesy Smithsonian Institution and the U.S. Air Force.

proofed boots. Many men, crippled by frostbite and trench foot, had to be relayed below.

After 19 days of bitter attrition the Japanese remnants gathered for a final charge at Chichagof Harbor. They penetrated the American lines and died almost to a man in hand-to-hand combat. The conquest of Attu cost nearly 500 American lives. The Japanese lost 1,800 killed with only 11 captured.

A Japanese destroyer flotilla, covered by fog, evacuated some 10,000 troops from Kiska in late July. The American invasion on August 15 thus found an abandoned island. So ended Japan's symbolic foothold on North America.

Today, small groups visit the old scenes of war in Alaska. On the Sitkan islands and the headlands guarding Kodiak Island and Seward's Resurrection Bay, moss-covered gun emplacements still peer out over the sea passes. In the dismal valleys of Attu and Kiska the war wreckage fades into the tundra. At Dutch Harbor and Fort Glenn rows of sagging barracks and abandoned hangars and shops bend and creak with the wind. These sites and scores of others remain largely unmarked and forgotten, except by the Japanese, who have traced the dying on Attu. The loyal remnant of the generation that fought here, both Japanese and American, grows smaller each year. Visits by those who survive, or their families and friends, become less frequent.

Is it not time to select and dedicate to active preservation some small portion of this phase of our national history? It is a history marked by many small anecdotes and large implications for today's Alaska.

The war vaulted Alaska from the 19th to the 20th century. It ceased to be a sub-continental frontier with many smaller frontiers within. Scores of military airbases—some of them used to relay U.S.-built warplanes to Russia—broke the distances and isolations of prewar Alaska. The Alcan Highway tied Alaska to the hemispheric roadnet. These, along with improved ports, railroads, fuel lines and many other facilities, laid the foundation for modern Alaska.

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World War II: Aleutian Reminders

A great number of resources remain on Attu and Kiska from the momentous events that took place there. World War II remains on Attu include buildings, airfields, roads, bridges, docks, and storage tanks. A pushcart railway built by the Japanese near Holtz Bay can still be seen. Wreckage of a P-38 twin-engine fighter (Lightning) plane remains in Temnac Valley. Vehicles, tools, and mechanical equipment lie rusting where they were left when the base was abandoned. Thousands of shell and bomb craters are still visible in the tundra. Also remaining are Japanese trenches, foxholes, gun emplacements and American ammunition magazines and dumps. Spent cartridges, shrapnel, and shells remain at the scenes of heavy fighting.

The extreme isolation of Attu helps protect the National Historic Landmark from development, vandalism, and other threats posed by humans. The island is occupied only by twenty men who operate a U. S. Coast Guard station. But some vandalism has occurred, nonetheless, as exemplified by an extensive collection of World War II artifacts found in the Coast Guard "whoopie hut." Several World War II buildings and their contents have been burned, either by

arsonists or during military sanctioned "clean-up" projects. "Clean-up" has also involved bulldozing large quantities of World War II machinery into Massacre Bay. According to the current USCG commander on Attu, vandalism and souvenir hunting within the NHL are no longer tolerated. The severe weather conditions, however, promote erosion and contribute to the continued deterioration of the cultural resources remaining on the island.

On Kiska the story is much the same. When the Japanese evacuated, they left behind an entire settlement and naval wreckage accumulated throughout a year of intense bombings. Buildings, armaments, fortifications, a Shinto shrine, and personal artifacts remain. Several Japanese vessels torpedoed by American submarines rest at the bottom of Kiska Harbor. Also on Kiska are structures, armaments, and equipment from an Allied naval patrol base established by the American-Canadian forces upon reoccupation and abandoned after the war.

As on Attu, the severe climate has taken its toll on World War II buildings, structures, and objects on Kiska. In addition, looting and vandalism by commercial fishermen endanger this Landmark. Without special efforts, these Landmarks will suffer further damage.

In the last two years, the National Park Service has undertaken several projects on Attu and Kiska to document the extensive material remaining from World War II. Documentation of a resource is essential if it is to be preserved.

Attu Battlefield and U. S. Army and Navy Airfield on Attu and Japanese Occupation Site, Kiska Island, were designated as National Historic Landmarks in

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May 1943, United States landing forces fire at Japanese from beachhead at Massacre Bay on Attu Island. Photo courtesy The Anchorage Museum of History and Art.

World War II: Aleutian Reminders

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1985, as part of a World War II theme study. At that time, the landmark nomination studies recognized that much documentation work remained to be done at these important sites. However, the remote location of the Aleutian Islands made it difficult and expensive to complete additional work. Furthermore, when the initial studies were done, no capabilities were on hand for assessing submerged ships and aircraft left from the war.

The opportunity to document the submerged resources at Kiska Island arose in the summer of 1989, when the National Park Service joined with the U. S. Navy and the Fish and Wildlife Service (which administers Kiska as a unit of the Alaska Maritime



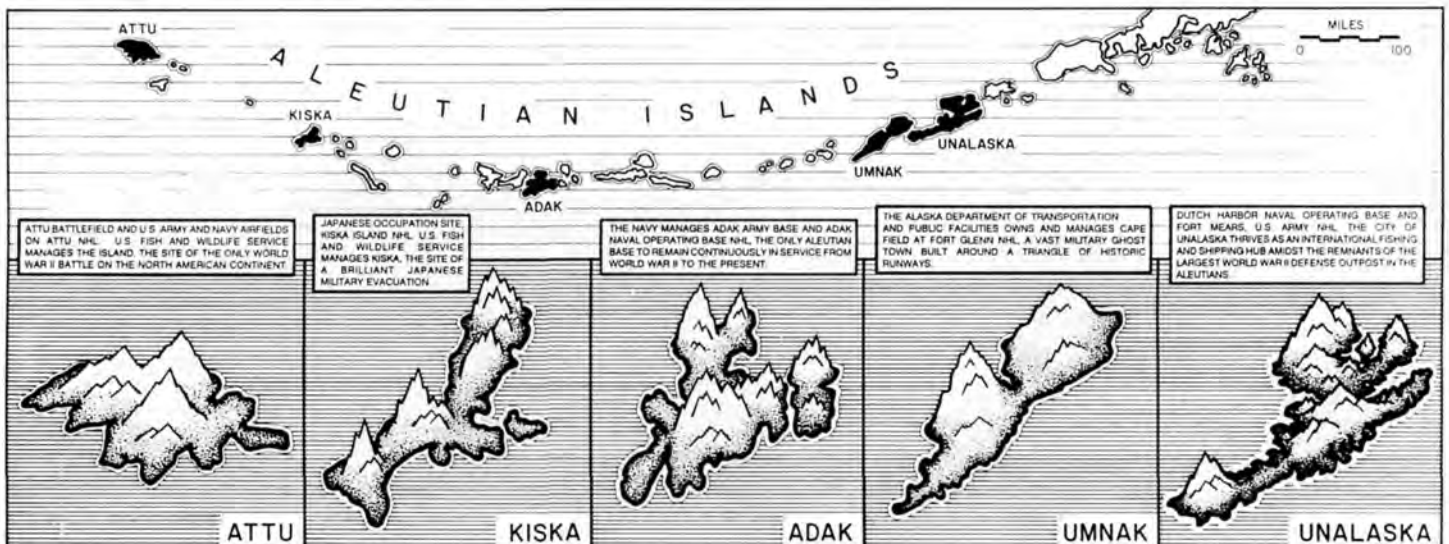
Before evacuating Kiska, the Japanese removed critical parts and set internal charges to immobilize the equipment they left behind. The shell of this two-man submarine is still on the island, although all that remains of the pen is a footprint in the tundra. Photo by Susan Morton, NPS, August 1989.



The landscape along Kiska Harbor today is pocked by bomb craters. Japanese entrenchments also remain visible across the tundra. Photo by Susan Morton, NPS, August 1989.

National Wildlife Refuge). The National Park Service, Submerged Cultural Resources Unit, is a team of underwater archeologists based in Santa Fe, New Mexico. This unit teamed with the Navy's Mobile Diving and Salvage Unit from Pearl Harbor. Together with other cultural resource experts from the National Park Service and the Fish and Wildlife Service, these units undertook a survey of Kiska Harbor. The Navy also contributed logistical support by committing the USS *Safeguard*, a towing and salvage vessel.

The first task upon arrival at Kiska was to locate submerged vessels. Bombing records provided some information on the location of wrecks, but better information was needed before divers could go out. To provide it, a side scanning sonar survey was undertaken. Towing a "sonar fish," a workboat scoured Kiska Harbor. It maintained constant radio contact with the *Safeguard*, reporting each large solid object. By tracking the workboat on radar, the *Safeguard* mapped each contact. Once the wrecks were located, a remote operated vehicle (ROV) with a video camera was sent down to investigate. Only then were divers sent down.



ARTWORK BY JAMES E. CREECH



In the background of this photo, taken in September 1943, are two Japanese midget submarines outside of a battered sub shed. The one-man subs, powered by storage batteries, measured just under 80' long. Photo courtesy of Archives and Manuscripts Department, University of Alaska, Anchorage.

The divers sketched the wrecks and recorded measurements on underwater slates. At the end of each day the measurements were fed into a computer. Using available data on World War II era Japanese ships, the executive officer produced drawings of the wrecks. These drawings showed each ship's current condition. Every evening the videos taken by the ROV were used to refine the drawings.

The survey of Kiska Harbor located ten submerged wrecks. These included a Japanese RO class submarine, two armed merchant ships, two subchasers, two landing craft, and an aircraft that may be an American B-17.

Land survey work by Alaska Regional Office Cultural Resources staff on Attu began in August 1991 and is scheduled for completion in summer 1992. The object of this detailed survey is to document remaining World War II structures and objects within the NHL on Attu.

Future activities involving World War II National Historic Landmarks in Alaska also include assessing the integrity of World War II structures and conducting boundary reviews of all current World War II NHLs in the Aleutians. Each of these Landmarks continues to be threatened in various ways. The Dutch Harbor Naval Operating Base and Fort Mears NHL is under extreme pressure from Bering Sea fishery activity. Cape Field at Fort Glenn NHL also faces pressure from fishery activity. In addition, vandals and souvenir hunters threaten the Landmark. Adak con-



Japanese 70mm anti-aircraft guns emplaced on hills surrounding Kiska Harbor. Photo by Susan Morton, NPS, August 1989.

tinues to serve as an active base today, and demands for operation of the Adak Naval Air Station require maximum use of a limited land area. Many World War II structures on the island have been torn down to make way for new construction.

The recording project at Kiska Island attracted international publicity. Yet publicity will not assure the preservation of these important cultural resources for the future. Much work lies ahead if the materials from World War II on Kiska, Attu, and elsewhere in Alaska are to survive weather, development, vandals, and thieves.

The information in this article was compiled by Michael J. Auer of the Preservation Assistance Division, National Park Service, from several sources: "World War II National Historic Landmarks: The Aleutian Campaign," a pamphlet prepared by Carol Burkhart and Linda Cook, Alaska Regional Office, National Park Service, in cooperation with the Unalaska Aleut Development Corporation; a report prepared by Susan Morton, an archeologist in the Cultural Resources Division, Alaska Regional Office, National Park Service, and "Attu Battlefield and U.S. Army and Navy Airfields on Attu," a National Historic Landmark Inventory-Nomination Form by Erwin N. Thompson.

Forgotten Chapters of a War (continued from page 14)

The human story hides in the broad sweep of intercontinental warfare. Examples: The pathos of useless deaths when six Canadian P-40 pilots—fresh from training and ready to fight—buzzed the Fort Glenn airbase and then, one after another, rose into the clouds to strike a hidden volcano; the southwestern desert decor of an officers' club at one Aleutian base—a sun and cactus reprieve from mud and rain; the last letters of Japanese soldiers on Attu—

resignation and sorrow and fear—and unyielding warrior duty; the similar mix that moved U.S. troops upward on those bloody slopes toward entrenched machine-gunners glimpsed through swirling fog.

World War II's only fighting campaign on the North American continent strummed the emotional chords of the Nation once before—when crises bloomed everywhere. Men and matériel flowed northward to victory. A mere chalice of emotional allegiance today would commemorate that earlier time.

William Brown is a retired historian from the Alaska Regional Office, National Park Service.

Ships Preserved, History Honored

Michael Naab

In the United States today, there are 47 U.S. warships preserved and on public display. They are as varied as the *Nautilus*, the world's first nuclear submarine, and the USS *Constitution*, an 18th-century frigate known to every school child as "Old Ironsides." Their numbers include nineteen submarines, eight destroyers, four battleships, three aircraft carriers, three minesweepers, two wooden sailing frigates, two cruisers, two PT boats, and a destroyer escort. Also included are three Coast Guard cutters that saw combat duty in World War II, one of which, the *Taney*, is the only combatant ship still afloat that was present at the attack on Pearl Harbor in December 1941.

That so many warships are preserved comes as a surprise to many Americans. As impressive as the numbers are, however, it is hard to escape the fact that nearly all of the ships date from World War II or later, suggesting that earlier epochs in America's naval history are not so well honored as the more recent past.

Actually, the concentration of WWII ships is less a reflection of preference for vessels of that era than it is the result of dual phenomena in the 1960s and

'70s: rising interest in maritime preservation and the availability of large numbers of naval ships that had reached the end of their useful lives.

Increased interest in maritime preservation during the 1960s can be attributed at least in part to the growth of the broader historic preservation movement that was taking place in America at the same time. Growing concern about the country's disappearing heritage, coupled with an awakening to the demonstrated cultural and economic benefits of preservation, resulted in passage of the National Historic Preservation Act and creation of the National Register of Historic Places in 1966. The same burgeoning interest was behind the establishment of thousands of local museums and preservation organizations throughout the country. Navy veterans, individually and as members of established veterans' groups, were predictably interested in preserving naval vessels as memorials to their wartime service and to lost shipmates.

Meanwhile, the Navy was pursuing an extensive program of scrapping ships that were obsolete or worn out. Under the Ship Donation Program, authorized by Congress in the 1950s, the Navy can conditionally donate such vessels to qualified recipients for use as static museums or memorials. Forty-three of the forty-seven warships that are preserved today were acquired for preservation after 1960, most of them through this program.

Preserved warships are located in every region of the country. All four battleships are displayed in their respective namesake states: the *Texas* at San Jacinto Battlefield State Park, near Houston; the *Alabama*, with the submarine *Drum*, in Mobile; the *North Carolina* on the Cape Fear River at Wilmington; and the *Massachusetts* in Fall River, with the submarine *Lionfish*, the destroyer *Joseph P. Kennedy, Jr.*, and two PT boats.

The huge *Essex*-class aircraft carrier *Intrepid* is the centerpiece of the Sea/Air/Space Museum, on New York City's West Side, along with the destroyer *Edson* and the submarine *Growler*. Another *Essex*-class carrier, the *Yorktown*, is at Mount Pleasant, South Carolina, where it is displayed with the destroyer *Laffey*, the submarine *Clamagore*, and two non-combatant vessels, the nuclear ship *Savannah* and the pilot boat *Comanche*. A third carrier, the *Cabot*, is at Kenner, Louisiana.

Some of the ship memorials are found in most unlikely places—unlikely, that is, until one considers that naval vessels have been built just about anywhere where there is water to launch them, and that sailors come from everywhere, not just along the seacoasts. The Great Lakes are home to three submarines, a guided missile cruiser, and a destroyer. The submarine *Batfish* is at Muskogee, Oklahoma; and Fort Worth, Texas has a minesweeping boat. One can visit the submarine *Marlin* and the large minesweeper *Hazard* in Omaha, Nebraska, or the submarine *Requin* in Pittsburgh.

The fascination that warships hold for the public is amply demonstrated by their ability to attract large numbers of visitors. For example, the USS *Constitu-*



The unprepossessing tug *Nash*, shown at her present pier in Buffalo, New York, is the last of the auxiliary vessels of her type that participated in the June 6, 1944, Normandy landings, where they played a vital role. NPS photo by James Delgado, 1990.



Top left, U.S.S. *Pampanito*, in retirement at Fisherman's Wharf, San Francisco. NPS photo by Candace Clifford, 1991. Bottom left, U.S.S. *Cavalla*, beached in Galveston, Texas, as photographed in 1989. The preservation of huge metal objects in hostile marine and near-marine environments poses a formidable challenge. The figure partially visible in the right foreground is then-maritime historian James Delgado, who is inspecting corrosion damage to the submarine. NPS photo by Candace Clifford, 1989. Top right, sheltered from the elements, PT-796 still presents a formidable aspect at Battleship Cove in Fall River, Massachusetts. NPS photo by James Delgado, 1990. Bottom right, the battleship U.S.S. *Alabama*, one of the vessels made available for use as a museum and memorial under the U.S. Navy's Ship Donation Program, is preserved at Mobile, in her namesake state. NPS photo.

tion, the only one of the 47 preserved warships still actually in commission, is the most visited site in Massachusetts—a state that is replete with historic monuments and recreational attractions of every sort. At San Francisco's Fisherman's Wharf, the World War II submarine *Pampanito* attracts fee-paying visitors in such numbers that the National Maritime Museum Association, which operates the boat, is able not only to maintain the vessel superbly, but also to contribute to the maintenance of the National Park Service's fleet of historic ships, located nearby.

There is every likelihood that, in the short term, the numbers of preserved warships will increase. In fact, the Navy is negotiating with several communities about the possible donation of the aircraft carriers *Coral Sea* and *Ticonderoga*, among other vessels.

About the long term, however, some preservationists have expressed concern. They cite the difficulties that many of the naval ship organizations have in securing funds for major cyclical maintenance work such as drydocking. Most of the ships, they point out, cannot rely on the large numbers of

admission-paying visitors that the *Pampanito* enjoys because of its location. State and local governments have generally not been willing—or able—to make up the difference.

Another potential problem is the corps of volunteers on which most naval ship groups rely heavily for administration tasks, interpretation, etc. A large majority of them are World War II or Korean War veterans; they simply will not be available for many more years.

None of these problems is insurmountable. With the continued interest of the public, and with energetic efforts to develop alternative sources of income as well as broader community involvement in the operation and preservation of these historic vessels, they will last to inspire and to educate our own and future generations about the rich and valorous history of United States naval operations.

Michael Naab is director of Maritime Preservation for the National Trust for Historic Preservation.

Archeology of World War II POW Camps

Jake Hoffman

The prisoner of war camps that dotted the United States during the last days of World War II are virtually forgotten. Almost a half million German, Italian, and Japanese personnel were transported and interned between 1943 and 1946 in 25 states. Smaller camps were often located in rural areas at little-used military facilities. Places such as Fort Shaw and Fort Missoula, MT, or Fort Robinson, NE, are better known today for their roles in the Indian Wars than for their Axis prisoners. Other camps in Texas, North Carolina, and New England are known mainly to historians. Large camps were located within active U.S. military posts for security and logistics. The few physical remains, and rich archival history, of the large camps are now considered part of our cultural heritage.

Recent survey of Fort Leonard Wood, MO, by American Resources Group, Ltd., documented many physical remains of POW labor and the camp. Drainage structures, retaining walls, and sidewalks were built by skilled masons using local sandstone quarried by other POWs. Included are masonry structures bearing the emblem of the once-vaunted Afrika Korps and the phrase "Deutsche Arbeit."

Only a few remnants of large POW camps at Camp (now Fort) Carson, CO, were found by Centennial Archaeology, Inc. during recent archeological survey. Constructed in 1943, the Camp Carson compounds first held Italian, then German and Austrian prisoners. Former use of Fort Carson for holding prisoners was largely forgotten by post personnel. Oral history from long-time civilian employees direct-



Symbol of Wehrmacht Afrika Korps carved into stone drain, Fort Leonard Wood. Photo courtesy American Resources Group, Ltd.

ed Centennial's survey crews to the general area vaguely remembered to contain the camps. They also provided valuable leads for archival research and informant interviews.

As part of the survey results, Centennial Archaeology, Inc., prepared a separate report on archeological and historical aspects of the camps. The archeology is sparse, but the history is rich in both archival and published materials. Operation and control of a camp were complicated matters guided by rules of the Geneva Convention. Provision of adequate housing, nutrition, and activities were straightforward matters. But maintaining order among pro-Nazi, anti-Nazi, and neutral factions of German prisoners proved difficult. All sides had their uses to American authorities.

Pro-Nazi prisoners provided efficient internal control of camp business, thus easing the duties of guards. Anti-Nazis and neutrals could be assigned to satellite work camps, thereby aiding America's labor-short agricultural and logging industries. Camp Carson had over 30 satellite camps in Colorado, including an urban unit attached to Fitzsimons Army Hospital. Structural remains of the satellites have yet to be recorded archeologically; most were probably absorbed into existing agricultural facilities. Prisoners worked under contracts between farmers and the Government. They were paid \$0.60 to \$1.20 a day, half of which was retained for release at the time of repatriation. The remainder was issued in "cantonment tickets" used to purchase personal items at camp canteens.

With the end of war in Europe repatriation became a complex affair muddied by politics and economics. American labor leaders were anxious to see the prisoners go; American farmers were not. The American Military Government in Germany was deadset against massive repatriation. In the logistics of moving troops, first priority went to bringing Americans home. Prisoners of war were kept within the United States for another year pending suitable arrangements for phased repatriation.

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Camp Carson POWs on a wood detail under light guard. Note mixture of American and German uniforms. Photo courtesy *The Denver Post*, reproduced by Jepson 1990.

Commemorative Activities within National Cemeteries Administered by the National Park Service

John Tucker

"There is no better way to prepare for the next war than to show your appreciation of your defenders in the last war."

Daniel E. Sickles
1825-1914

On a May afternoon in 1989, former American Prisoners of War began slowly gathering at Andersonville National Historic Site to honor their comrades held in European POW camps during World War II. Several of these older Americans were moved to tears as they talked of their POW buddies. They had worried about who in the next generation would remember their sacrifices. Many of these POW veterans were held by the German Army at Stalag XVII-B in Kreems, Austria, during 1943-1945. For more than two years, they stayed hungry, cold, tired, and in constant fear for their lives.

On May 3, 1989, exactly 45 years after being liberated, the Stalag XVII-B ex-Prisoners of War unveiled a heroic monument at Andersonville. Almost 400 Prisoners of War from World War II, Korea, and Vietnam and their families attended this emotional dedication. Ken Kurtenbach was imprisoned in Stalag XVII-B.

"You lived in fear of gunfire and disease from vermin. We had inadequate food and water; we suffered from severe cold. Fear, lack of food and water, and beatings were common themes which haunted all prisoners of war."

Commemorative activities have been an important part of National Cemetery operations for more than 100 years. Just after the Civil War, the first Memorial Day services were conducted by the Grand Army of the Republic, a Union veterans group. They set the tone for future commemorative ceremonies:

"Thus, when we pause today to cherish 'tenderly the memory of our dead who made their breast a barricade between our country and its foes, . . .'"

Today at Andersonville, the park staff continues this proud tradition by working with friends, groups, and veteran organizations to honor America's veterans and former prisoners of war.

Andersonville National Historic Site was authorized by Congress on October 16, 1970. The law established a truly unique addition to the National Park System:

"in order to provide an understanding of the overall prisoner-of-war story of the Civil War, to interpret the role of prisoner-of-war camps in history, to commemorate the sacrifice of Americans who lost their lives in such camps, and to preserve the monument located therein, the Secretary is authorized to designate not more than five hundred acres in Macon and Sumter counties, Georgia, for the establishment of Andersonville National Historic Site."

With the passage of Andersonville's enabling legislation, Andersonville National Historic Site became America's National Prisoner of War Memorial.

Early National Park Service management policy informally required Service-administered national cemeteries, such as Andersonville, to be operated under guidance of the U.S. Army Technical Manuals and 36 CFR 12. Prior to 1973, the U.S. Army operated all other national cemeteries. With the passage of the National Cemeteries Act (P.L. 93-43) in 1973, the newly organized Veterans Administration assumed responsibility for the national cemeteries not operated by the Service. The Army Technical Manuals were quickly adopted by the Veterans Administration as well.

Still, the National Park Service continued to operate its national cemeteries without any well-defined policy. After P.L. 93-43, Park Service field supervisors began relying on the Veterans Administration to answer questions on the management of national cemeteries. However, under 36 CFR 12, managers were required to operate under an obsolete Department of the Army guideline. By 1975, the Veterans Administration began converting from the Army's TM series to their own guideline, the M40 series. The initial policy document M40-1 was followed by M40-2 Operations, and M40-3, headstones and markers.

The new Veterans Administration guidelines deviated from early Service policies in a number of important ways. First, the primary purpose of the national cemetery system was to provide cemetery benefits to America's honorably discharged veterans. On the other hand, the Service's primary mission prior to 1975 was to preserve and interpret major cultural events of which the national cemetery was simply a by-product. Second, the Veterans Administration policy allowed for expanded national cemetery boundaries as needed and congressional actions warranted. The only written National Park Service policy addressing this issue appeared in a 1975 letter:

"Most national cemeteries in the National Park System are administered as integral parts of larger historical parks and are historically significant in their own right. The enlargement of such a cemetery for additional burials constitutes a modern intrusion compromising the historical character of both the cemetery and the historical park."

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Commemorative Activities Within National Cemeteries Administered by the NPS

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Each of the 14 national cemeteries managed by the Service continued to follow local standards and customs. Policies regarding placing flowers on graves, visitation and operations varied widely. Communication with the Veterans Administration was primarily for the purpose of ordering headstones or confirming deceased veterans' service benefits. Realizing the need for uniform professional management of Service-administered national cemeteries, superintendents within the Southeast Region began discussing these inconsistencies in 1982. In the fall of 1983, Southeast Deputy Regional Director Jack Ogle appointed a regional task force to review national cemetery policies. From this initial conference some 17 policy issues were identified. The task force was expanded by National Park Service Director Russell Dickenson to include all 14 national cemeteries in March 1984.

An important element of the National Cemetery Guidelines (NPS-61) and the revisions of 36 CFR 12 was the recognition that public assemblies in cemeteries should be strictly limited to persons and organizations memorializing the deceased veteran.

"National Cemeteries are established as national shrines in tribute to the gallant dead who have served in the Armed Forces of the United States. Such areas are protected and administered as suitable and dignified burial grounds and as significant cultural resources. As such, the authorization of activities that take place in National Cemeteries is limited to those with applicable legislation and that are compatible with maintaining the solemn commemorative and historic character of these areas." (36 CFR 12.2)



Dedication of the Stalag XVII-B Prisoner-of-War Monument at Andersonville National Historic Site, May 3, 1989. NPS photo courtesy Andersonville NHS.

For this reason, veteran groups and others like the American Ex-Prisoners of War, Stalag XVII-B, are permitted to erect commemorative monuments within historic Andersonville National Cemetery.

Almost simultaneously with the development of NPS-61 and revisions to 36 CFR 12, Helen Smith, historian for the American Ex-Prisoners of War, representing some 85,000 ex-prisoners of war, visited Andersonville National Historic Site. She and her husband Allen Smith along with J. B. Underwood, both ex-prisoners of war, had been directed by their National Commander to visit Andersonville National Historic Site in December 1983. The purpose of their visit was to determine how the two organizations might work toward a common goal to commemorate the sacrifices of American Prisoners of War.

Long before National Park Service Director William Mott issued his 12-point plan in 1985 calling for new directions in Service policy, local park managers realized the need for "community" involvement. This "community" involvement had many facets. Director Mott clarified one type of "community" involvement in "the Director's Report" which appeared in the May 1987 *Courier*.

"We are a part of the larger community, and as such we have a fundamental responsibility to be involved. . . . At every opportunity, we need to be prepared to work with neighboring communities to deal with problems up front and early on. By referring to the surrounding community, I also mean to include state and federal agencies and others whose decisions will impact our resources and visitors."

Community involvement was more broadly defined in the 1980s by Service thrusts involving friends groups, Take Pride in America, the Policy on Fund Raising and Philanthropy, and local managers developing their own ways for dealing with threats to park resources.

This community involvement has generated many positive benefits for the Service. One of the best examples has been the association of Andersonville National Historic Site with the American Ex-Prisoners of War. From the initial meeting with Mrs. Smith at Andersonville, a formal resolution was passed by the membership of the American Ex-Prisoners of War at their national convention authorizing full cooperation with the Service in commemorating the Prisoner of War story. Today efforts are underway by the Service and the ex-prisoners of war to construct a prisoner of war museum at Andersonville with private and public funding. Prior to this joint action a memorandum of agreement concerning fund raising, artifact donations, and general cooperation between the two organizations was signed by both parties in September 1984. Former Prisoners of War continue to be excited about the cooperative efforts and visit Andersonville regularly. They often volunteer in the park as POW hosts, sharing their stories and artifacts from their prisoner of war captivity.

The fruits of this private and public union have been many. Helen Smith returned to Andersonville with a large bundle of photographs depicting life in

several Prisoners of War camps in World War II. One photograph showed the inside of POW Camp 10D in Tokyo, Japan. In this photograph, two large Christmas posters could be seen hanging on the wall as several prisoners sat nearby playing cards. They were the same posters given to the park two years prior by Ex-Prisoner of War Curtis G. Davis. The three watercolor posters, painted by Mr. Davis while in captivity, depicted Santa Claus, a Red Cross ship and deer.

"...in December 1943, I painted three (3) watercolors from paints and paper I secured on the Japanese Black Market. These paintings decorated our quarters during the 1943 and 1944 Christmas seasons without repercussion from the Japanese."

These posters were the same Christmas posters as seen in Helen Smith's photograph album. For the 1985 Christmas season, the Santa Claus poster, photographs, and a Red Cross Christmas package were displayed in the Andersonville museum. Helen had these comments regarding the exhibit:

"The holiday seasons should be a time for family and celebration. However, many Americans have suffered pain, hunger, and loneliness as prisoners of war during times of conflict. For the prisoner of war, their only comforts were thoughts of home."

This exhibit provided a dramatic personalized interpretive experience in which park visitors could begin to understand the life and hardships of America's prisoners of war.

As NPS-61 was developed, an effort was made to

insure Service-operated national cemeteries provided a suitable and dignified burial ground for veterans. Also, the guideline had to be flexible enough to allow commemorative activities which were consistent with applicable legislation and were compatible with maintaining the solemn memorial and historic character of the cemetery. At Andersonville National Historic Site, commemorative monuments and plaques have been installed honoring the Civil War unknown soldiers buried in the National Cemetery; the American Prisoners of War lost during the atomic bomb attack on Hiroshima, Japan; European prisoners of war and most recently honoring the 27th U.S. Air Force Bomb Group. Each of these commemorative monuments and plaques were placed in accordance with the policies established in NPS-61 and 36 CFR.

John Ransom said it best in his 1864 Andersonville diary entry.

"I have read in my earlier years about prisoners 'in the Revolutionary War, and other wars. It sounded noble and heroic to be a prisoner of war, and accounts of their adventures were quite romantic; but the romance has been knocked out of the prisoner of war business higher than a kite. It's a fraud."

Today at Andersonville National Cemetery, monuments, plaques, Memorial Day services, and interpretive programs all work together providing a framework to continue the spirit of Civil War General Daniel Sickles to honor America's fallen heroes.

John Tucker is superintendent at Fort Sumter National Monument in Sullivans Island, SC.

Archeology of World War II POW Camps

(continued from page 20)

The POW facility at Camp Carson was deactivated during June and July of 1946. Buildings were converted to other military uses until 1950 when the compounds were largely destroyed by wind-driven fire. Today the area is covered with neatly landscaped family housing. Physical remains of two camps that once held up to 10,000 prisoners consist of scattered barracks foundations, drainage ditches, sandstone blocks, and fragments of pressed wallboard.

At Fort Leonard Wood POW constructed stone-works remain much in evidence; they are integral parts of the post structural fabric. Considered significant in context of defined historic goals, many are recommended for listing on the National Register of Historic Places. Certainly these products of "Deutsche Arbeit" provide compelling reminders of the Fort's past. Large scale archeological surveys of military installations have been underway for some time. Yet very little information on remains of POW camps is available. Sometimes the remains are obscured by later development and land use. Perhaps, as at Fort Carson, they are simply forgotten.

Further Readings

- Bosworth, Allan R.
1967 *America's Concentration Camps*. W. W. Norton and Company, Inc., New York.
- Gansberg, Judith M.
1977 *Stalag U.S.A.: The Remarkable Story of German POWs in America*. Thomas Y. Crowell Company, New York.
- Jepson, Daniel A.
1990 *Historical and Archaeological Perspectives on the World War II Prisoner of War Camp at Fort Carson, Colorado*. National Technical Information Service PB90 266750.
- Koop, Allen V.
1988 *Stark Decency: German Prisoners of War in a New England Village*. University Press of New England, New Hampshire.
- Krammer, Arnold
1979 *Nazi Prisoners of War in America*. Stein and Day, New York.
- Kruse, Arthur M.
1946 *Custody of Prisoners of War in the United States*. *The Military Engineer* XXXVIII(244):70-74.
- Walker, Richard P.
1989 *The Swastika and the Lone Star: Nazi Activity in Texas POW Camps*. *Military History of the Southwest* 19 (Spring): 39-70.

Jake Hoffman is chief of the Interagency Archeological Services Branch, Rocky Mountain Regional Office.

Archeology and Icons: USS *Arizona* and Other Examples

Roger E. Kelly

Icons of many types exist everywhere in today's world, and pioneering anthropological literature has developed regarding this phenomenon and its conceptual implications (Fishwick and Browne 1970, 1978). Some archeologists have delved into relations between ideology, technology, and archeological research (Hodder 1982; Leone 1978; Miller and Tilley 1984). Using USS *Arizona* as an example, this paper attempts to weave some ideas and approaches from these sources into a viewpoint applicable to archeological resources of the World II period. The guidelines offered here are meant to challenge others who are investigating World War II materials, events and their evidence, and locations, not necessarily to prove a thesis.

In less than five years all objects, places, sites, and values associated with the World War II period will reach the 50-year threshold. Individuals with direct experience as actors in this drama are still numerous and will be keenly interested in 50-year anniversary observances. Archeologists in many countries can substantially help in the planning of events, preservation of historic resources and locations, and development of educational messages, thereby carrying heritage content into the future. A conscious effort should be made by archeologists and their historical-preservationist colleagues in coordinating efforts on local, regional, national, and international levels.

Definitions of "icon" vary but include the basic concept of a two- or three-dimensional entity that evokes multiple meanings or values, transcending its simple visual appearance. Fishwick's (1970:1) definitions of an icon as "external expressions of internal convictions" or "images and ideas converted into three dimensions" get to the heart of the matter. An icon is recognized as a physical entity whose image may be multimedia in form, thus easily recognized (and may be profaned in replica), and has identification from its own physical characteristics, but whose context of culturally determined values transcend all other attributes. It may be venerated itself and its space sanctified.

Iconography, or the manner by which icons and their expressions are studied, may take a fine arts or liturgical direction as in religious icons, or a material culture studies direction as in "pop" or secular icons, or perhaps in a historical narrative (see Bennett 1970; Fishwick and Browne 1970, 1978). These authors observe that icons have changing roles in a society through time, and develop out of cultural processes with time also, often having more than one set of iconic values during their viability. We are therefore

faced with many questions. Can historical archeological resources be icons? What are some examples and how may techniques of archeological research be applied to them? Can World War II resources be identified for study as legitimate iconic phenomena? Does warfare between societies generate icons of particular sorts more rapidly than other intersociety interactions?

Ideology and Archeology: Some Examples

Miller and Tilley (1984:8) discuss the concept of ideology as an analytical method that "emphasizes differences in interests and conflicts in representation for a variety of groups within a society." In a series of concluding statements, these authors posit three check-points for archeological information.

1. A society (and our knowledge of it) is analyzed in terms of different and conflicting interests held by groups within it;
2. A given group within this society will attempt to understand its function, then represent its interests, and in so doing, will transform in the direction of those interests;
3. Such representations will be believed to be universal but will be only partial, to be coherent but will really be in conflict, to be permanent but will be in flux, to be natural but really will be cultural in origin, and to be formalized but will be really ambiguous contradictions (adapted from Miller and Tilley 1984:13-14).

Thus, ideology and the power of it within a society are manifest in material products that are open to archeological investigations. Miller and Tilley's *Ideology, power and prehistory*, and similar volumes (e.g., Hodder 1982), contain examples of these concepts applied to a variety of heritage resources.

Can the analytical method of ideology be applied to historical archeological materials from the World War II period? In addition to examples described by Fishwick (1970), Geist (1978), Goethals (1978), Mann (1978), and Orr (1978) from secular life, eight examples (Table 1) and USS *Arizona* may clarify the discussion. Readers may decide if these or similar resources are iconic archeological resources, and if the suggested approach would yield effective information.

Definition of icons which possess transcendent historic and archeological values is often made on geopolitical levels. Some regional icons such as the Golden Gate Bridge or a Plains 'teepee' are historic architectural forms with residual technology left in the earth. Through modern media, these have become international in scope, crossing cultural boundaries with changes in meaning. Local icons are the most common, often relating to historical developments which give identity and uniqueness—cable cars, stage coaches, building styles, or personages in sculpture. Duplicated as images which evoke emotions about the past, icons arise from geopolitical bases and from ideological foundations held by societies and their members, in real and ideal ways.

TABLE 1.
Heritage Resources as Potential Cultural Icons on
International Levels

Resource	Ideology Values	Actions by Owners
Valley Forge (1777-1778)	U.S. Revolutionary War patriotism and sacrifices	Preservation as a public park; Interpretation, structural replication, research
Great Wall, China	Nationalism, societal intra-cooperation for protection	Representation, tourism, preservation, interpretation
HMS <i>Mary Rose</i> (1509-1536)	English naval power, economic growth, nationalism, naval technology	Interpretation, preservation, tourism, representation, research
Mission San Antonio de Valero (1718-1836)	Spanish culture in arid North America, local political/military martyrdom	Interpretation, preservation, tourism, representation
Taj Mahal, India (1632-1645)	Religion, fine arts, caste system, romanticism	Preservation, tourism, replication, representation
Stonehenge, England (Neolithic)	England's origins, sophistication of European Neolithic societies	Preservation, tourism, interpretation, replication, research
Pyramid of the Sun, Mexico	Achievements of Preconquest Mesoamerican states, Mexico's origins	Tourism, preservation, representation, research
Lascaux Cave, France	Sophistication of "stone age" peoples, European "beginnings" of art expression	Tourism, preservation, replication, security, research

Arizona as an Icon

There are many historical and popular publications on the events at Pearl Harbor, beginning with the official investigations after 1941. For the most part, USS *Arizona* is discussed in historical terms of the attack and its aftermath. Eyewitness accounts also describe, in retrospect, actions and feelings of the time. With the completion of the memorial structure and the visitor center, however, more recent books address *Arizona* in reverent tones. For example, the following sentiment probably echoes that of many visitors:

After investigation, the Navy decided to remove *Arizona's* topside and leave her in position, a fitting resting place for her dead. Today a beautiful memorial covers the sunken hull, a shrine of pilgrimage for many visitors and a silent protest

against smugness and the lack of preparation (Prange, Goldstein and Dillon 1986:538).

Official events of remembrance are well attended—December 7, a presidentially proclaimed day of remembrance, and Memorial Day. Reverence to the sunken battleship is extended from passing naval vessels as colors are dipped. Floral arrangements are placed by families and veterans' organizations. Presidential proclamation 5582 of 1986 calls upon the Nation to "pledge eternal vigilance and strong resolve to defend this Nation... from all future aggression" and to honor the "courageous Americans who made the supreme sacrifice." Official NPS interpretive themes are *Arizona*, casualties memorialized in a military shrine, the attack event, and the importance of Pearl Harbor as the beginning of war between the United States and the Empire of Japan. Secondary themes are salvage and recovery of the Navy's Pacific Fleet, and Pearl Harbor's role in the Pacific Theater and Hawaii during the early war years (National Park Service 1982).

As a United States Navy vessel, *Arizona* clearly is a physical entity whose image under attack is depicted in print, photographs, fine arts, and other media. As a functional ship, she is depicted in models, including two mass-produced plastic versions in two scales. Most easily recognized in photographs as listing and on fire, *Arizona* symbolizes the Pearl Harbor attack and loss of life during warfare, particularly in the west coast and Pacific areas of the Nation. In written materials from the 1950s to the present, the vessel is associated with military heroism and valor, the human cost of unpreparedness, and the ability to recover for ultimate victory. Like USS *Maine*, *Arizona* served to provide a rallying point for United States political, military, and civilian efforts to face a common enemy. Ideologies within the United States held by military and civilian sectors may have conflicted before 1941, but after the attack ideological differences were reduced in the face of war mobilization. However, racial/ethnic differences between Asian and non-Asian citizens widened as shifts were made from American ideals of egalitarianism to an authoritarian government during a declared war.

More than 50 warships and merchantmen survive from the war period, and 36 vessels meet integrity criteria of National Historic Landmarks (Butowsky 1985). Of this number, only four battleships remain: USS *Alabama*, USS *North Carolina*, USS *Texas*, USS *Massachusetts*, and the highly altered USS *Missouri*. Other older battleships (USS *Iowa*, USS *New Jersey*, and USS *Wisconsin*) have been modernized for active service. As exhibited historic vessels, USS *Alabama*, USS *North Carolina*, USS *Texas*, and USS *Massachusetts* appear to be complete and service-ready, and certainly evoke symbolism of United States naval power, but not in the context of warfare. They too are depicted in many media and enjoy high public interest, but their iconic values are not the same as those for *Arizona* (Morss 1987). USS *Missouri*, which remains on active duty, is one of the more popular ships to visit, undoubtedly because of her historic

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role at the end of World War II as the site of the Japanese surrender.

Representations of *Arizona*, especially under attack, are exceptionally well known. Identifiable elements are her mast and superstructure configuration, four gun turrets, and visible damage from the attack. Missing 14-inch gun tubes and turrets (save Number One) and the resulting vacant openings signify the ideological theme of recovery and rebuilding-recycling toward military victory. Other salvaged armaments, equipment, and structural steel also illustrate this theme. Seeping oil, jagged decking and hull plates, explosive evidence, and debris show the price of surprise attack while at anchor and valor of defense against odds, according to military ideology. Today, treatment of the sunken hulk in a reverent fashion continues the ideological respect of war dead, entombed in a maritime space instead of in collective graves or monumental structures. A few survivors have joined the lost crew by having their cremation urns placed within an open gun turret. This appropriate gesture has been made since "the *Arizona* Memorial is consciously designed to function as a shrine...because it was built over a sacred relic which is also a tomb" (Linenthal 1990:7).

Representations or expressions of USS *Arizona* in many media forms are available as sales items in the visitor center and similar or identical items are available nearly worldwide. These items carry the visual attributes of the icon over time and space. Since *Arizona* in her post-1941 existence fits the definition of a secular icon, predictions can be made that management probably will be only approved short-term actions. Stabilization, replacement, rehabilitation, or chemical/technical treatment of the vessel may later develop as official policy. Public visitation has dramatically increased as facilities have improved and information is disseminated, changing or strengthening perceptions or opinions already held by visitors. The sacrosanct character of the vessel as a historic resource will require broad public involvement if more than "leave alone" actions are proposed. The relative inaccessibility of the resource, unlike many other historic icons, will likely increase the iconic value of her images.

Summary

Archeological research has sharpened the definition of USS *Arizona* as an American historic icon and has provided a graphic means to balance iconic values to national ideologies with the reality of the resource 50 years later. National military and political unpreparedness may be contrasted with local civilian mobilization before an event that brought temporary military control and subservience of some nationally held beliefs. Christopher Geist (1978:60) has observed that many national historic resources do not offer Americans views of unpleasant facets of their history, and he cautions his readers that

As the United States moves into its third century, we must reassess the manner in which Americans use and preserve their history...do we foster a numbing sense of nostalgia for "Good Old Days" that never existed?...If fresh views of the past would strengthen our ability to understand and cope with the present, then we should rethink some of our approaches to American history and its icons (Geist 1978:64-65).

References

- Bennett, S.C.
1970 Christ, icons, and mass media. In *Icons of popular culture*, edited by M. Fishwick and R. B. Browne, pp. 91-102. Bowling Green, Ohio: Popular Press.
- Butowsky, H.A.
1985 *Warships associated with World War II in the Pacific: National Historic Landmark theme study*. Washington, D.C.: National Park Service.
- Fishwick, M.
1970 Entrance. In *Icons of popular culture*, edited by M. Fishwick and R. B. Browne, pp. 1-2. Bowling Green, Ohio: Popular Press.
- Fishwick, M. and R. B. Browne (editors)
1970 *Icons of popular culture*. Bowling Green, Ohio: Popular Press.
1978 *Icons of America*. Bowling Green, Ohio: Popular Press.
- Frange, G. W., D. M. Goldstein, and K. V. Dillion
1986 *Pearl Harbor: the verdict of history*. New York: McGraw-Hill.
- Geist, C. D.
1978 Historic sites and monuments as icons. In *Icons of America*, edited by M. Fishwick and R. B. Browne, pp. 57-66. Bowling Green, Ohio: Popular Press.
- Goethals, G.
1978 Sacred-secular icons. In *Icons of America*, edited by M. Fishwick and R. B. Browne, pp. 24-34. Bowling Green, Ohio: Popular Press.
- Hodder, I. (editor)
1982 *Symbolic and structural archaeology*. Cambridge: University of Cambridge Press.
- Kelly, R.
1985 Assessing USS *Arizona*. *Cultural Resource Management Bulletin* 3:1-3.
- Leone, M. P.
1978 Archaeology as the science of technology Mormon town plans and fences. In *Social archaeology*, edited by C. Redman, M. J. Berman, E. V. Curtin, W. T. Langhorne, Jr., N. M. Versaggi, and J. C. Wanser, pp. 125-150. New York: Academic Press.
- Linenthal, E. T.
1990 Symbolic warfare on America's battlefields. *Cultural Resource Management Bulletin* 13:7-8.
- Mann, D. A.
1978 Architectural icons: the best surprise is no surprise. In *Icons of America*, edited by M. Fishwick and R. B. Browne, pp. 35-56. Bowling Green, Ohio: Popular Press.
- Martini, J.
1984 Surveying the *Arizona*. *After the Battle* 11 (45): 39-43.
- Miller, D., and C. Tilley
1984 *Ideology, power and prehistory*. Cambridge: University of Cambridge Press.
- Morss, S.
1987 Preserving the warships of World War II: Battleship Cove as a case history. *APT Bulletin: The Journal of Preservation Technology* 9:56-59.

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The Military Drawdown and Historic Preservation

D. Colt Denfeld
Michael S. Binder

The United States defense budget cuts and the end of the Cold War permit the closing of military bases. The adverse impact of base closures on local economies is well known and will force Federal and local efforts to mitigate the loss of jobs. Another adverse impact with the drawdown may be the loss of historic features. The military has been a good caretaker for many historic structures.

The transfer of bases will present a serious challenge to preservation managers to identify and guard historic features. The preservation process will require negotiation and compromise. Often creative plans will have to be formulated to mesh preservation with new functions. One approach which should now assume greater importance is reuse. Carefully planned reuse can offer economic viability while preserving the original military character.

The current base closing plans have more potential for destruction of historic elements than previous closures. This time the Federal Government is making a concerted effort to earn cash through the sale of properties. The military properties are being touted for economic redevelopment which increases the value of the property and mitigates the economic loss of base closure.

Redevelopment has the potential for the demolition of historic buildings and alteration of the historic fabric. Even when historic buildings are not removed, the landscape and vistas will be greatly altered. For example, construction on former parade grounds will obstruct the vista so unique to the military base.

The 1990s intent to earn money through property sales suggests that future releases may be different than past transfers. Of the 162 facilities closed between 1961 and 1990, 45 became colleges or schools; 75 are now industrial parks; and 42 serve as municipal airports. A few additional former military installations are now correctional centers or substance abuse treatment facilities.

Among the previous transfers, colleges and schools have left the former bases most intact. But these institutions often lack the desire or capability to maintain the historic structures. New tenants obtaining bases to be redeveloped are even less likely to have the desire or ability to preserve historic places.

The military has facility engineer organizations with the mandate, expertise and resources to preserve historic structures. Staff trained in historic building restoration and maintenance technology are available. The new tenants will be hard pressed to match the Army's performance in the preservation of posts. Two out-

standing examples are the Presidio of San Francisco and Fort Monroe, Virginia. The Presidio, scheduled for closure, has a strong preservation support base and its transfer will provide for preservation. The historical significance of other bases is not as clearly recognized.

Over 200 years old, the Presidio of San Francisco has preserved features and buildings from the Spanish occupation, Civil War, frontier-era, Spanish-American War, coastal artillery eras, and World War II. A 19th century coastal defense fort is preserved at Fort Monroe.

Historic buildings have been saved and carefully maintained on U.S. military bases worldwide. Some fine examples are officers quarters such as Riverside, constructed in 1909 as a plantation house but now the commanding general's quarters at Fort Benning, Georgia. The post has carefully protected this five bedroom, three bathroom home which became the commander's home when the Army purchased the plantation in 1918 for use as a camp.

Fort Huachuca, Arizona has a commander's quarters built in 1884. Named the Pershing House, it honors General John J. Pershing who twice stayed here during inspection tours. This home with three bedrooms, three bathrooms, and three fireplaces is expertly maintained.

The military inventory of historic buildings includes many more simple and plain structures than grand buildings like Riverside and the Pershing House. The historical significance of the unadorned World War II mobilization buildings is currently under study by the Department of Defense. This has included an inventory, evaluation of significance, and plan of preservation. Fort Ord, California, one of the bases on a 1991 closing list, has many of these now 50-year-old mobilization buildings. The closing of this post will clearly impact one of the best collections of mobilization architecture.

The mobilization architecture of World War II was a standardized design to build inexpensive but comfortable barracks, offices, hospitals, and other buildings of the new bases for that war. Since World War II there has been a number of weapons systems that required specialized designs for structures housing a new weapon or its delivery system. Missile defenses created new installations that were quite different from previous military bases. Over 300 bases were constructed for the Nike Air Defense system—a defense introduced in the mid-1950s but on the way out only 10 years later.

Nike missile installations were abandoned in the 1960s and 1970s, but many still stand empty and heavily vandalized. Located near population centers they were gone before nearby residents learned what lay behind the cyclone fences and sentry dogs. Today the neighbors may be unaware of their history, but have heard rumors of contamination and can see the safety hazards of the decaying buildings.

There are other examples of abandoned installations with buildings so vandalized that the only option is demolition. Had more consideration gone into reuse and greater speed in the transfer process these bases could have gone to would-be tenants putting to use the valuable assets. Today they might be economically viable properties.

Not only is it desirable to make use of valuable assets, but former military bases have a special place in

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The Military Drawdown and Historic Preservation (continued from page 27)

our psyche. This country has a strong interest in military structures and bases and this is most intense among those with military service. Participation in military life brings with it the development of life-long bonds between service members and strong ties to bases where one served.

Numbers of service people join veterans groups and military unit associations. These veterans associations have reunions and activities where members can get together and share memories. The reunions are sometimes held at camps, posts, or battlefields where the unit fought or was stationed. These reunions evoke powerful emotions as events and places are recalled. Also, many veterans make individual visits to their former bases and barracks. This interest of veterans, plus the general societal interest, gives military bases high points in the preservation order.

Few former installations can be preserved in their original function. Financial considerations prevent the conservation of many into museums. Many more can be saved through reuse and this conversion to civilian use can often be accomplished while conserving the original character of the installation or structure.

For those already lost through abandonment and deterioration or otherwise can not be saved, preservation through documentation is an alternative. For example, the Alaska District, Army Corps of Engineers, has funded a program to develop Historic American Buildings Survey (HABS) and Historic American Engineering Record (HAER) architectural drawings and histories of World War II and modern (Nike missile) military bases in Alaska.

There are examples of reuse demonstrating that even the most specialized structure has a civilian match. The underground Nike missile magazine seems improbable for other uses but creative efforts have been employed to reuse them. A civilian requirement of the Department of Energy in the 1970s to test solar units fit well with the functioning of this underground facility. The National Bureau of Standards, that was to conduct the tests, required a location where the solar units could be stored in the dark and introduced into the sunlight with a defined baseline. The underground magazine with its elevator to bring up missiles was ideal.

The Nike launch site (W94V) at Gaithersburg, Maryland was obtained for the solar unit testing. The units were placed on the missile elevators and raised to the above-ground launch pad for testing. The missile elevator in its raised position served as the test platform.

At Dillsboro, Indiana an underground Nike missile magazine was converted into a home. The project was initiated in 1979 and completed four years later. The former missile magazine provided 6,000 square feet of living space. Harold Whisman, the owner, reports that not only is it larger than other homes, but brighter with a 14' x 14' skylight that "lets in gigantic shafts of light. And we keep it all. Most of the interior walls are made of glass panels, so the light goes through the walls and spreads into most of the rooms and areas.

We may live underground, but we're definitely not moles. Not in all this sunlight." (*Star*, October 27, 1987)

The underground Nike magazine has an energy-saving advantage. The natural temperature is 58° so sunlight is necessary for heating year round. There is no need for air conditioning even during the hottest Indiana days. During the winter the house is heated by one wood-burning stove which consumes only eight cords the entire cold season.

Near Denton, Texas, another underground Nike magazine was converted into a darkroom for large-scale photographic reproduction. The open large, and dark, chamber was well suited for exposing and developing photographs of up to 30' wide and 11' tall. Photographs of this size were a creation of artist Bob Wade who prepares photographs to cover an entire wall with one sheet of paper.

In Alaska two Nike sites were saved from vandalism and neglect to find new uses. Site Point adjacent to the Anchorage International Airport was developed into Kincaid Park, a ski recreation area with over 30 miles of trails. Four above-ground concrete launch structures were retained with one converted into a chalet with snack bar. During the summer the chalet is a rest stop for a bike trail connecting Kincaid Park and downtown Anchorage. At Site Jig near Fairbanks a launch structure is employed for explosives storage.

At Westport, Connecticut the Nike radar tower was easily converted into an astronomical observatory. Elsewhere Nike facilities have become educational centers, a marine laboratory, and office buildings.

What one might do with 20 ammunition bunkers was effectively answered at Newport News, Virginia. Demolition was the owners' first thought until they learned it would cost \$500,000 to raze the 6'-thick floors and steel reinforced walls of the WWII bunkers. The owners, the Oyster Point Development Corporation, did not have the capital to demolish, so instead they sold the units. Some 165 inquiries were received—from growing mushrooms to storing antique automobiles. Eight people wanted bunkers for homes but were turned down as it was to be a business park.

High demolition costs have also prevented the demolition of coastal defense gun batteries. A few have been converted into museums and others preserved and opened to visitors. Their heavy construction suits them to use as storage vaults; and Battery 304, in the National Memorial Cemetery of the Pacific, at Punchbowl, Hawaii, was considered for use as a mausoleum. Battery Ashburn in Fort Rosecrans, San Diego, has been converted into a research laboratory.

On Jersey Island in the British Channel Islands a German casemate has been converted into a cafe. Another Jersey casemate was made into restrooms bringing relief to beach goers and the local preservation community. The gun casemate converted into restrooms had been scheduled for demolition to open space for a restrooms building. Preservationists meeting with the Public Works Department asked that they compare the cost of demolition and new construction to reuse. The Public Works architects found that it would be less expensive to convert the World War II German casemate into restrooms.

(continued on last page)

Reflections of the Day of Infamy—Rare and Forgotten Views of the Pearl Harbor Attack

Daniel A. Martinez

As the memories fade, the visual impressions of many of those who witnessed the attack on Pearl Harbor have diminished in clarity. Often overlooked in the process of researching and writing modern military history is a primary source that not only clarifies oral histories and documents, but can restore those faded memories—the photograph. Certainly my experience of trying to piece together the sequence of events and material descriptions of the attack has been enhanced by photographic evidence taken before, during, and after the event. Much to

my surprise in undertaking my initial research several years ago, I discovered that hundreds of photographs existed, many of them taken during the attack.

What follows is a series of images that have not been widely published or for some readers, never before seen. This collection is at the USS Arizona Memorial Visitor Center in Hawaii. However, it must be noted that a majority of these photos exist in the collections at the National Archives, Naval Historical Center, U.S. Air Force, and the Japanese Self Defense Force Records.

Nearly 50 years ago cameras were loaded aboard selected Japanese aircraft to document the attack on Oahu. To the south 230 miles away, some civilian and military personnel rose early to capture in the morning light images of scenic Hawaii that pleased their personal tastes. Among the array of cameras were both still and movie instruments, loaded with either black and white or color film. Later some movie film would be featured as edited stills.

In most cases we know very little about the camera operators. Who were they? How did they happen to have cameras? Were they professionals or amateurs? In a few cases we know names. Lee Embree was an Army Air Corps sergeant flying in from Hamilton Field north of San Francisco, with 12 B-17s. Time of arrival was scheduled for 8:00 a.m. at Hickam Field.

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Readying for takeoff A6M2 (Model 21) *Reisen* fighter aircraft are prepared by flight deck crew for the second wave attack. This image was taken probably just before 7:00 a.m. aboard the Japanese carrier *Akagi*. Note battle flag array, rolled splinter matts, and dotted line stripes used by the pilots to guide takeoff and landing on a pitching deck.

Japanese *Aichi* D3A1 Type 99 Dive Bombers, probably from the carrier *Zuikaku* led by Lt. Akira Sakamoto, are shown in various postures of attack over Wheeler Field around 8:10 a.m. Visible are four aircraft either completing bomb runs or positioning to attack. Note the burning flight line of P-40 and P-36 fighters placed in neat rows by Lt. Gen. Short's order, which was a measure to prevent sabotage. Truly fascinating birds-eye view from around 7,000 feet. Lt. Tomatsu Ema commented that the parked American planes were the "color of gold dust... It was more like a practice run than actual combat."



In March of 1942 the foremast of USS *Arizona* was removed. The dismantling process continued throughout the year. The ship was a total loss. It had been decided that guns from turret No. 2 would be removed and that the turret apparatus from turrets No. 3 and No. 4 would be employed as coastal guns. Shattered and broken in half, she was no longer a viable vessel to be returned to service. *Arizona* was stricken from the list of U.S. Naval ships in 1942. Most of the 1,177 crewmen lost still serve entombed in their ship. There will never be another vessel in the U.S. Navy that will bear that name. It has been retired. Contrary to popular belief, *Arizona* is not still in commission.

Reflections of the Day of Infamy—Rare and Forgotten Views of the Pearl Harbor Attack

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On approach to land, Embree readied the camera to take pictures of Hawaii, only to find that the planes that the crew perceived as greeters were attackers. He snapped two pictures of the aircraft. Capt. Eric

Haakensen, a doctor aboard USS *Solace*, went topside to film the attack on Battleship Row. He captured the horrifying movie sequence of USS *Arizona* blowing up. And Harland (Huck) Gray, my grandfather, who in the midst of the attack, ran to his car and grabbed a Revere 8mm movie camera to film from Red Hill the destruction of the fleet below him. None of these images are part of the selection. The Embree and

Over the roar of the screaming engine of the A6M2 *Reisen* come the now muted banzais and cheers from the crew of *Akagi*. The aircraft is piloted by Petty Officer Tadao Kimura, second wingman to Lt. Saburo Shindo, who commanded the second wave attack.



As B-17s arrived to land at Hickam Field they found a hostile receiving committee. The planes found themselves in a terrible fix, unarmed and low on fuel. Lt. Raymond Swenson's desperate situation magnified rapidly as a Japanese bullet ignited magnesium flares on board as he prepared to land. The fire spread from the radio compartment and soon the whole plane started to be consumed. Swenson brought her down quickly and with a rough bounce on the runway, the blazing tail section broke away, while the forward section skidded to a stop. The crew scrambled for shelter. All were safe but for Flight Surgeon William Shick who was machine gunned to death by a strafing fighter as he ran down the runway. The photo shows the broken remains of Lt. Swenson's B-17C from 38th Reconnaissance Squadron around noon at Hickam Field, December 7, 1941.

On May 27, 1942, an award ceremony was held aboard the carrier *Enterprise* to honor the early heroes of the Pacific War. Conspicuous among those standing at attention was a large, robust 22-year-old African-American, Mess Attendant 2nd Class Doris Miller from the battleship USS *West Virginia*. The image shows the historic moment in which the first of his race was awarded the Navy Cross by Adm. Chester W. Nimitz. The medal was given for Miller's action during the attack on Pearl Harbor during which he assisted others in caring for the mortally wounded Capt. Mervin Bennion. Because of his size and strength he carried his captain to safety. After Bennion died, Miller manned a machine gun with another crew member and fired at the attacking planes. Gordon Prange wrote in *At Dawn We Slept*... "Lt. Commander Doir C. Johnson saw Miller, who was not supposed to handle anything deadlier than a swab, manning a machine gun blazing away as though he had fired one all his life. As he did so, his usually impassive face bore the deadly smile of a berserk Viking."



Haakensen pictures are widely published. In Gray's case, his film was turned in to the military authorities and never returned.

What is evident in the images presented here is a rich resource of visual evidence that reflects a not-so-distant event that changed world and military history forever. These photographs are clues to comprehending how written descriptions can be better under-

stood. So often photographs are placed as center fillers for manuscripts. I suggest that they are a primary research resource, not outside the realm of scholarship but rather a key resource in that endeavor.

Daniel Martinez is the park historian at the USS Arizona Memorial, NPS, Honolulu.

The Military Drawdown and Historic Preservation
(continued from page 28)

The casemate restroom was created by cutting one additional door into the structure, adding interior walls, and installation of the necessary plumbing. The gun room was left intact with only the addition of a water tank. The exterior was unchanged except for a new door and signage indicating its new purpose.

At Manchester, Massachusetts, a fire control tower and adjoining barracks of a coastal defense battery created a unique and functional home. The 14"-thick reinforced concrete walls of the fire control tower prevented much alteration so architect Craig Lentz designed rooms to fit in the existing tower. Styrofoam insulation and wall paneling were added to the tower interior walls.

The adjacent 40' x 22' wood-frame barracks was easily redone into a home. The open-bay interior was divided into rooms and the latrine made into a bathroom. The floors had to be reinforced, insulation added to the open frame walls, and storm windows added. The open bay and exposed stud walls made the interior work an easy add-on proposition.

The casemates of Fort Crockett's Battery Leonard Hoskins in Galveston, Texas, former home to 12" coastal defense guns stood where a 15-story hotel and 16-story condominium was to be erected. Demolition of the reinforced concrete casemates would be expensive so a design was developed to incorporate them into the complex.

One casemate was used as a partial support for a four-story hotel wing, while the second became part of the landscaped grounds. The two casemates anchor a semicircular driveway entrance into the complex. The casemate interiors have been used for storage and business establishments.

Bunkers and casemates have also been used as mushroom farms, cheese plants, and film locales. One former Army post, Fort MacArthur in San Pedro, California, has been used many times as the setting for

films and television programs. The main post was used in place of the more distant Schofield Barracks for the television version of "From Here to Eternity." The upper post of Fort MacArthur which is now a cultural center with studios for artists has been used numerous times for television productions.

The above examples of reused military bases and structures will serve their new tenants for many years and will continue to recall their military existence. They are only a few examples of the many possible uses of former military structures. Their reuse has been cost effective and preserves military relics.

D. Colt Denfeld, Ph.D., is curator of the 2nd Infantry Division Museum in Camp Casey, Korea.

Michael S. Binder is a geochemist, presently preparing a history of air defense of the United States.

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Murphy, L.

1987 Preservation at Pearl Harbor. *APT Bulletin: The Journal of Preservation Technology* 9:9-15.

National Park Service (publishers)

1982 *USS Arizona Memorial: interpretive prospectus*. Harpers Ferry Center, West Virginia.

Orr, D. G.

1978 The icon in the time tunnel. In *Icons of America*, edited by M. Fishwick and R. B. Browne, pp. 13-23. Bowling Green, Ohio: Popular Press.

Prange, G. W., D. M. Goldstein, and K. V. Dillon

1986 *Pearl Harbor: the verdict of history*. New York: McGraw-Hill.

Slackman, M.

1986 *Remembering Pearl Harbor: the story of the USS Arizona Memorial*. Honolulu: Arizona Memorial Museum Association.

Roger Kelly is the regional archeologist, Western Regional Office, National Park Service.

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