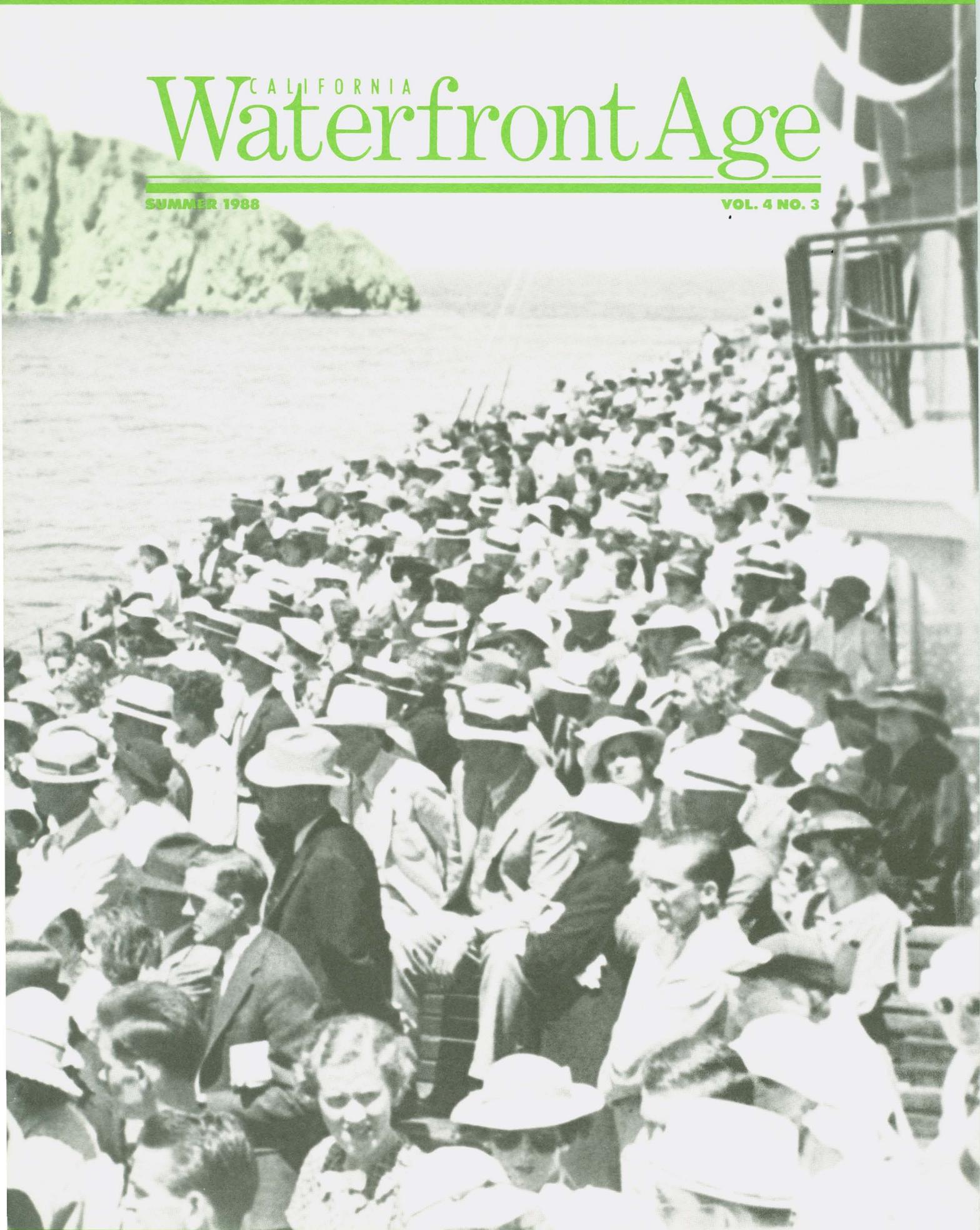


CALIFORNIA Waterfront Age

SUMMER 1988

VOL. 4 NO. 3



Guidelines for Contributors

California Waterfront Age is glad to consider contributions of articles and shorter items related to the state's waterfronts. We aim to provide a forum for the description and discussion of public programs and private initiatives relating to waterfront restoration and development in California. Resource management and economic development are our major themes.

We will consider articles of up to 3,000 words on the following subjects:

1. Economic development, project finance, waterfront restoration, the impact of changing uses.
2. Tourism, waterfront parks, public access.
3. Maritime industries.
4. Water quality, resource restoration, enhancement.
5. Cultural and historical issues.

We will also consider the following shorter features:

Conferences: We publish summaries of waterfront-related conferences.

Book reviews: We seek relevant reviews, about 500 words in length, of current books and other publications of interest to our readers.

Essays: Reflections on themes related to waterfronts are welcome. They can be verbal, photographic, graphic, or in cartoon form.

Interested contributors should call or write the editor. Send self-addressed stamped envelopes with submissions.

Are you on our mailing list?

To receive *California Waterfront Age*, or for information on the programs or projects of the State Coastal Conservancy, please send a note with your name, organization, address, and affiliation (civic group, government agency, consultant, development/financial, maritime industry, other) to:

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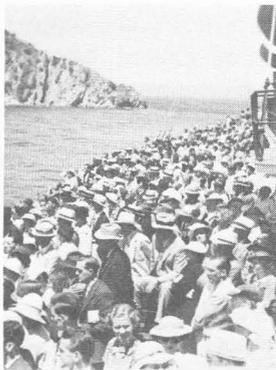
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Cover: Man comes to Catalina! Courtesy Catalina Island Museum, Whittington Collection.

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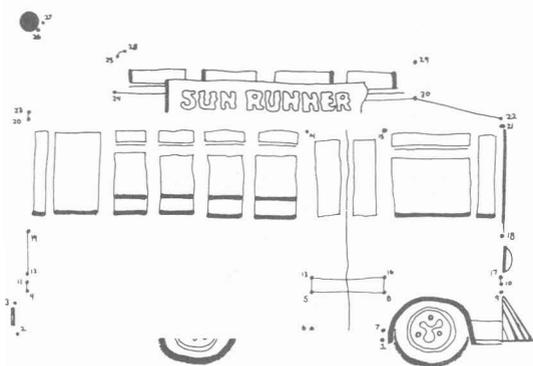
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Focus on Coastal Transit
page 8.

THE GREAT AMERICAN love affair with the automobile is drawing inexorably to its logical conclusion: gridlock. The marvelous freedom, flexibility, and power of driving one's own car, described so eloquently by Joan Didion, are rapidly disappearing in the face of increasing congestion; soon nothing may be left but to put it up on blocks and admire it nostalgically. Some of the most severe traffic problems are found along the coast and on routes leading to the shore. Mute testimony is provided by Caltrans electric signs

informing Los Angeles motorists of traffic conditions on the way to their favorite beaches. Even remote scenic areas like Big Sur have been studied regarding the feasibility of banning cars along the Pacific Coast Highway (except for residents) and operating minibuses for visitors between staging areas. We may not be able to reach the good

life before the sun sets if we don't address this problem soon.

There are signs that attention to this problem is growing: the revival of trolleys and even construction of new transit systems, as in San Diego; the fresh interest in ferryboats; and the operation of coastal shuttle services. Yet stopgap measures such as new hardware, diamond lanes, staggered office hours, and carpooling are unlikely to prove adequate. Even the expenditure of billions of dollars for more and improved roads can be no more than a temporary expedient until the new lanes get as clogged as their neighbors.

Does the answer lie in increasing urban densities, and so, presumably, reducing travel and travelers? City crowding has its serious social, psychological, and physical costs, as has been demonstrated from New York to Calcutta. What else might one con-

sider? Forced resettlement? That tactic has been used through the centuries for certain social purposes: to settle outlying border areas to secure them from invaders (China and Israel), to protect populations from armed conflict (Vietnam and El Salvador), for "national security" (Japanese Americans' internment in the United States and "final solutions" in Germany during World War II), and to make lands available for new settlement (American Indian relocations). But forced resettlement has not been used, to our knowledge, for reasons of maintaining environmental quality. We do not seem to have reached a point where such draconian measures are perceived as being necessary.

Incentives for resettlement, then, as in the promise of free land that led to the Oklahoma land rush and are now leading to the destruction of Brazilian rain forests? Maybe not that, either.

A major reason for California's continuing population growth is precisely the salubrious quality of life it offers, especially on the coast. The coast's recreational value, as measured for example by tourist dollars spent as well as by congestion from Monterey to Malibu, is known worldwide. In this issue of *California Waterfront Age* we touch on some recent attempts to alleviate the problem of getting to the shore, and of moving about in waterfront cities. These efforts may help at least one more generation to enjoy the benefits of our wonderful coastline. After that, who knows? As Dr. Joel Hedgpeth, the eminent marine biologist, suggests in comments that also appear in this issue, perhaps the anticipated sea level rise will rearrange coastal issues in a few decades. □



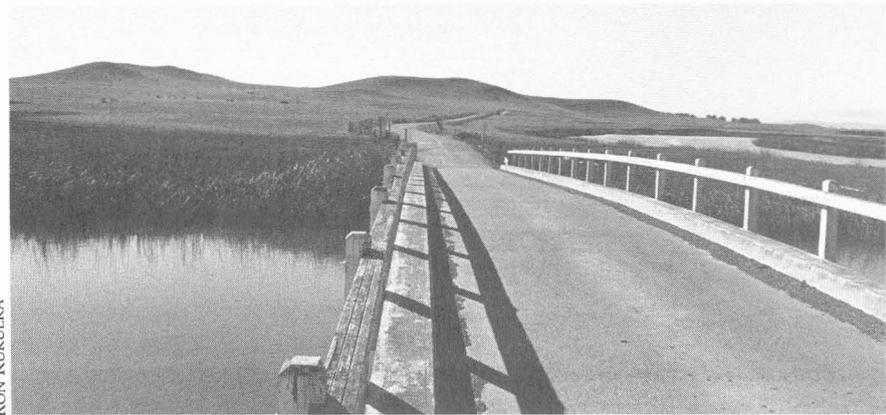
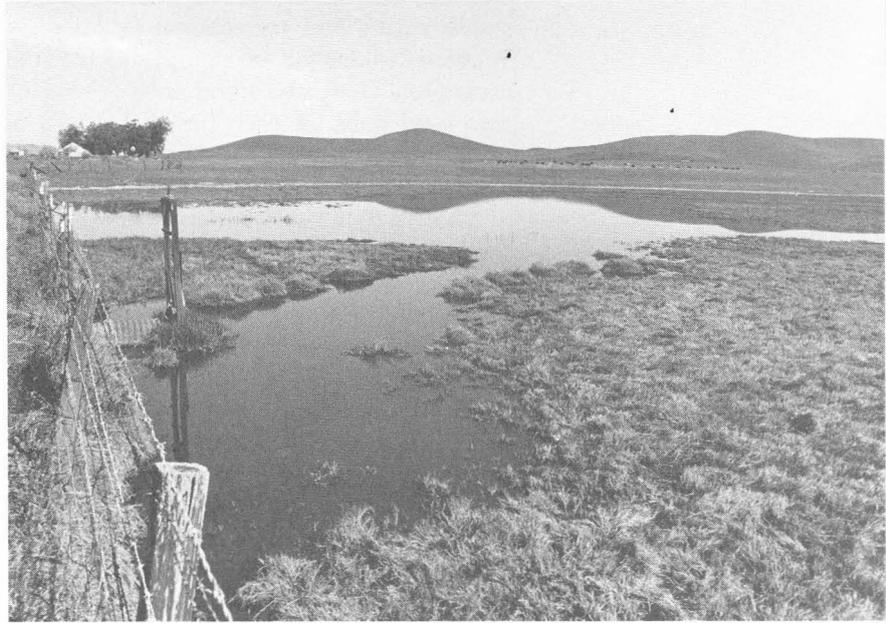
KEN DOWNING

Rush Ranch Secured

The Bay area's fastest growing county gained a scenic open space as large as many regional parks when the Solano County Farmlands and Open Space Foundation acquired the 2,070-acre Rush Ranch May 12 with the help of a grant of up to \$1,507,500 approved in April by the Coastal Conservancy. The foundation is now preparing a management plan in consultation with the Department of Fish and Game and others. It plans to protect and enhance 1,300 acres of undiked tidal wetlands, which provide habitat for waterfowl and at least 17 candidate and endangered species; and to restore upland habitat, degraded by overgrazing, for wildlife nesting, foraging, and cover. The foundation will also develop public access on steep hills that offer spectacular views of the entire 85,000-acre Suisun Marsh and the distant Sierra Nevada Mountains, and grazing management controls.

Suisun City Waterfront Progress

Recreational development on the Suisun City waterfront is one of the goals of the city's Waterfront Restoration Plan, prepared with \$50,000 of Coastal Conservancy funds and approved by the agency in April. The city sits on the edge of the state's largest remaining tidal wetland, Suisun Marsh, and abuts hundreds of acres of state-owned lands. The waterfront plan, for 80 acres along Suisun



RON KUKULKA

Rush Ranch

Dear Reader:

Are you part of an organization or agency that offers environmental education programs in cooperation with public schools? Or do you run programs that teachers and students can participate in? If so, please send some information as soon as possible to Waterfront Age, so we may mention them in our next issue, where we look at education: what is done on the state's coast to meet the Legislature's 1969 mandate for the development of "educational programs for teachers and students commensurate with the importance of protecting scarce resources and safeguarding the quality of our environment." Thank you.

The editors

channel, offers specific recommendations for public access and recreational facilities development along Suisun slough and provides conceptual illustrations and architectural design guidelines for each project, as well as preliminary cost estimates and an implementation program.

San Antonio Creek Work

The Sonoma County Water Agency will prepare a resource enhancement plan for San Antonio Creek, on the border of Marin and Sonoma counties, with a Coastal Conservancy grant of up to \$30,000 approved in April. Sonoma County, which had asked for the Conservancy's assistance, is cooperating with Marin County and Caltrans on a project to control flooding of Highway 101 by acquiring land next to the highway, downstream, and by removing a drive-in theater and surrounding dikes that cause the creek to back up and flood the road in heavy rain. The plan will identify actions to restore and enhance some of the lost seasonal wetland and riparian habitat along the creek on the parcel acquired by Sonoma County.

Ballona Lagoon Rescue

Neighbors in the Silver Strand Area of the Venice Peninsula of Los Angeles are seeking to rescue the Ballona Lagoon, which is dying because of poor tidal circulation, oversedimentation, and lack of management. Their efforts received another boost from the Coastal Conservancy in March, in the form of a grant of up to \$50,000 to the Ballona Lagoon Marine Preserve to prepare an enhancement plan. The Conservancy also agreed to accept, temporarily, 47 open space/public access easements along the shore above the lagoon. When the plan is completed, these will be transferred either to the city of Los Angeles or to the Ballona Lagoon Marine Preserve for long-term management. The preserve was recently created by local lagoon advocates.

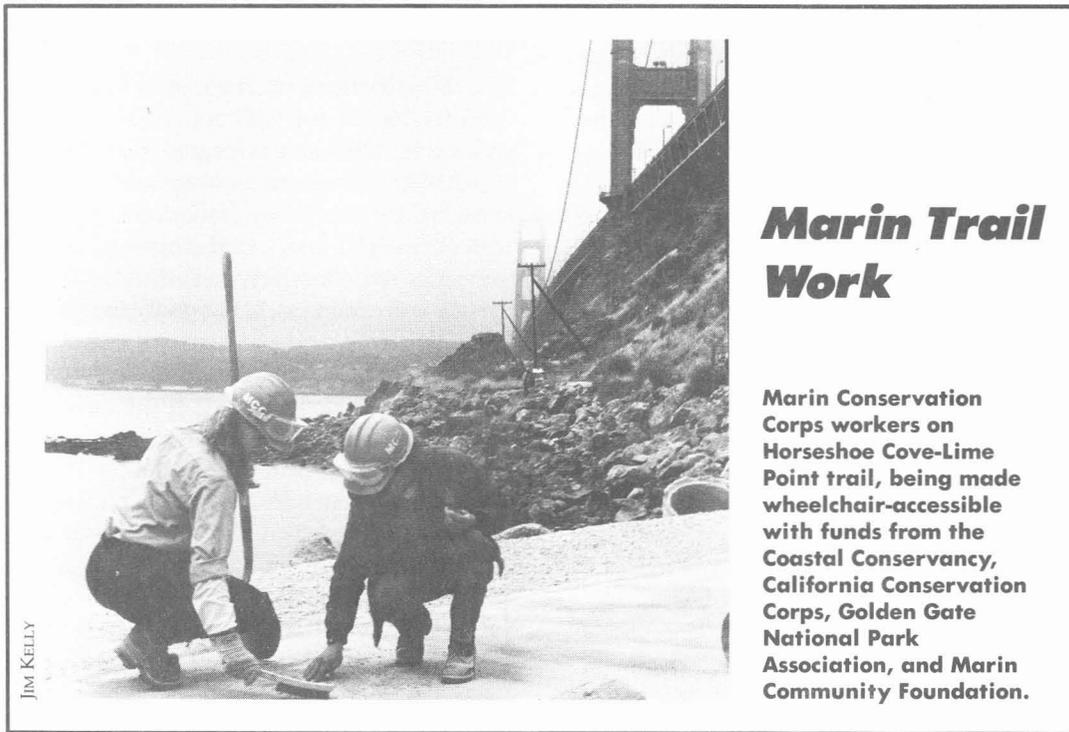
Ballona Lagoon proves valuable habitat and foraging areas for over 20 species of migratory waterfowl and shore birds, including the endangered California Least tern, and is an environmentally sensitive resource of statewide significance according to the California Coastal Commission and the Department of Fish and Game. More than a million people visit annually. The enhancement plan will identify specific actions to increase tidal circulation, control stormwater discharge, remove concrete structures and fill, restore native vegetation, control bank erosion, create a small tidal marsh, and improve public access and lagoon interpretation.

Santa Ana Wetland Plan

Of the 30 square miles of historical wetland at the Santa Ana River mouth, only a few hundred acres remain. A Coastal Conservancy grant of \$50,000, authorized in March, will help Orange County to enhance, expand, and restore some of what's left by preparing an enhancement plan for the Fairview Park property on the River's east bank. Combined with a previous grant for the adjacent property, and a marsh enhancement project planned by the Army Corps of Engineers, this grant will allow the county to develop alternatives for creating a comprehensive system of tidal, freshwater, and riparian wetlands with trails and an interpretive program.

A Napa Marsh to Grow

Levees along the Napa River have shrunk the once-extensive wetlands, but vestiges persist in John F. Kennedy Park, south of West Imola Avenue in the city of Napa. With the help of a Coastal Conservancy grant of up to \$30,000, authorized in May, the city will prepare an enhancement plan for this remnant to benefit wildlife and fill a regional need for interpretive access to wetland habitats. While the Department of Fish and Game and the U.S. Fish and Wildlife Service own wetlands



JIM KELLY

Marin Trail Work

Marin Conservation Corps workers on Horseshoe Cove-Lime Point trail, being made wheelchair-accessible with funds from the Coastal Conservancy, California Conservation Corps, Golden Gate National Park Association, and Marin Community Foundation.

along the Napa River, public access is extremely limited. This project aims to restore 27 acres by expanding the three-acre seasonal marsh to 20 acres, restoring vegetation and wildlife habitat to a denuded 7-acre pond, and strengthening the habitat link between the pond and riparian corridor. The plan will also recommend a design for an interpretive marsh trail that will tie into the proposed Napa River access project.

San Diego Beach Ramps

Almost no ocean beaches are accessible to wheelchair riders or people with impaired mobility. But in San Diego, that is about to change. With a grant of up to \$55,000 authorized by the Coastal Conservancy in May, the city will provide portable access ramps at three of its most popular beaches: La Jolla Shores, South Mission Beach, and Ocean Beach. The matting provides a hard and flat surface for wheelchairs on even the softest sand. The ramps can be moved or removed

to accommodate varying physical conditions and periods of use. This low-cost solution for a serious access problem was developed by the city and wheelchair access advocates working with the Conservancy.

Field's Landing Acquisition

A Conservancy grant of up to \$250,000, authorized in March, will aid the Humboldt Bay Harbor, Recreation, and Conservation District to acquire 30 acres at Field's Landing on southern Humboldt Bay to support the development of coastal-dependent marine industrial uses and for natural resource protection. This property encompasses both developable industrial land and environmentally sensitive wetlands. Its owner, Santa Fe Pacific Realty Corporation, has offered it for sale to the district, which owns land at Field's Landing and operates a marine services complex. The district is also charged with regulating development activities on the Bay and with protecting open space and

natural resource areas. Acquisition of this property will ensure that commercial fishing and related marine industrial uses are provided for in an appropriate location on the bay and that long-term management of sensitive wetland resources is accomplished. A comprehensive planning process, including extensive community input, will ensure that marine-related development is compatible with wetland protection goals.

Tijuana River National Estuarine Research Reserve

A grant of up to \$292,600 was authorized by the Conservancy in April to the San Diego State University Foundation to prepare required environmental documentation and develop a monitoring program for proposed habitat restoration activities at the Tijuana River National Estuarine Research Reserve. A long-term restoration program for the reserve was approved in September 1987 by its management authority, composed of representatives from the Conservancy, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the Coastal Commission, the Department of Parks and Recreation, the city of Imperial Beach, and the city and county of San Diego. The program, if implemented, would increase tidal flushing of the reserve and expand wetland resources to benefit wildlife and endangered species using the marsh. Preparation of the EIS/EIR documents must be completed, and a monitoring program must be developed, before restoration can be implemented. The management authority recommended that the foundation undertake these planning tasks as the documents will benefit from existing research on the Tijuana Estuary already conducted by the University of San Diego Pacific Estuarine Research Laboratory at Tijuana Estuary.

The reserve encompasses about 2,530 acres of tidally flushed wetland, riparian, and upland habitats.

TBT Update

Severe restrictions on the use of tributyltin (TBT) in marine antifouling paints have been enacted by California, Oregon, Washington, and Alaska, thanks to an unusual multistate effort led by the Pacific Fisheries Legislative Task Force. TBT is one of the most toxic substances ever deliberately introduced into the marine environment. It is deadly to oysters, mussels, clams, and other marine organisms and has begun to appear in human food supplies. TBT-based paints are widely used on the hulls of boats and ships because nothing matches their effectiveness against the attachment of barnacles and other marine organisms. The compound leaches slowly into the water.

Alaska now has the toughest TBT limits in the nation. It restricts the use of TBT-based paints on vessels less than 4,000 gross tons, exempting aluminum hulls, and sets a 3-microgram per day steady release rate. California and Oregon restrict use on vessels under 25 meters (82.5 feet), also exempting those with aluminum hulls. Oregon has set a 5-microgram release rate. California is in the process of establishing a release rate through the Department of Food and Agriculture in cooperation with the Office of Administrative Law. Regulations are expected to be implemented this year.

In 1986, when Assemblyman Dan Hauser brought the TBT issue to the Task Force, no state regulated the use of this compound on hulls. Virginia and North Carolina were the first to establish restrictions. Within the past two years, almost a dozen states have done so. More importantly, Congress recently approved a bill nearly identical to legislation passed by West Coast states. Inquiries can be addressed to the House Merchant Marines and Fisheries Committee. □



Coast Weeks '88 Events

Adults and children will swarm over beaches nationwide on Coastal Clean-Up Day to collect debris and gather valuable facts about pollution and entanglement. The October 1 event is one of many planned for Coast Weeks '88, September 17 to October 10.

Volunteers will sort trash collected for recycling and will report on what they find to the Center for Environmental Education, in Washington, D.C. Plastics including fishing nets, strapping bands, and balloons are of special concern because of the hazard they pose to marine life. Stranded or entangled birds and animals will be reported to local stranding networks. "This is one time when all the environmental groups, together, can do something bigger than any one of them could do alone," said Jon Toste at the California Coastal Commission, which will publish a statewide calendar of Coast Weeks events this summer. These include seminars, sea fairs, special exhibits, runs, and races.

The Coastal Commission is promoting its Adopt-a-Beach program this year. Last year, "Project Ocean," sponsored in part by the San Francisco Bay Chapter of the Oceanic Society, adopted Ocean Beach in a pilot program. Twelve fourth- and fifth-grade classes from San Francisco schools visited the beach to study marine life, help in clean up, and learn about recycling. The children also examined trash at home for recyclables. Community groups planning or considering beach adoptions or other activities should contact Jack Liebster or Jon Toste at the Coastal Commission, 631 Howard, San Francisco, CA 94105. (415) 543-8555.

Riparian Systems Conference

The second "California Riparian Systems Conference" will be held September 22-24, sponsored by the University of California Extension at Davis. Issues covered will include the destruction of streamside lands, resource

management, and new concerns for the restoration of riparian habitats throughout the state.

The conference will combine programs and seminars to bring professionals, activists, and the general public together on riparian issues.

For more information, call Dana Abell at (916) 752-3098.



Coastwalk '88

This year's Coastwalk starts July 31 and will cover 150 miles in five counties during the ensuing 35 days. It begins in MacKerricher State Park in Mendocino County and ends September 4 at Cascade Ranch, San Mateo County. Anyone can join, for the entire trek or a day, but those planning to stay with it at least five days will have priority. Weekends and special days may fill up fast. The \$15 daily walk fee covers campsite or hostel accommodations, transportation of gear, a chuck wagon dinner, and a campfire. Volunteer naturalists will accompany the hike.

Coastwalk is a volunteer organization that aims to foster an awareness of the coastal environment and to promote the development of a contiguous California coastal trail. It began in 1983 with a week-long trip along the Sonoma coast and hopes, eventually, to walk the 1,100 miles between Oregon and Mexico. For more information, call (415) 285-9459 or (707) 545-0169. To register, call (707) 525-8978. □

KEN DOWNING

WAYS TO GO



Automobiles are so much a part of coastal California that it is hard to imagine a scene without people in cars— young people with surfboards sticking out through the sun roof of an old VW, families in station wagons, seniors in campers and large sedans, four-wheel-drive trucks tearing across sand dunes. But it has not been thus for very long, and may not be for much longer.

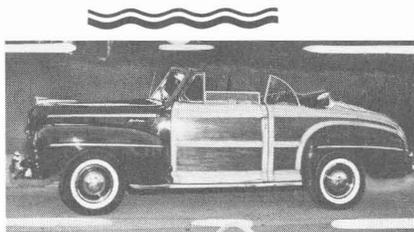
In the 1920s, Los Angeles had one of the biggest and best electric trolley systems in the nation. It carried more than 100 million people a year over 1,000 miles of tracks. In the San Francisco Bay area, 50 ferry lines plied the waters, linking communities by frequent runs.

It was in the 1930s, when the Bay Bridge and the Golden Gate Bridge were built, that major ferries were abolished to pave the way for automotive vehicles. Between 1936 and 1946, General Motors, Firestone Tires, Standard Oil of California, and some others successfully conspired to wreck electric train systems in Los Angeles and over 40 other cities, and to replace them with gasoline-burning GM buses. The federal government brought a conspiracy suit in 1947 and nominal fines were levied, as CBS reminded on "60 Minutes" last December. But by that time the tracks had been torn out and the trolleys had been sold to more commonsensical European cities or had rusted in junkyards. In the 1950s, the federal highway program led to the demise of most American rail lines.

But now another era in transportation is on the horizon, forced into being by congestion on highways that were meant to be freeways and instead have degenerated into tedious corridors of chronic crawl. In San Diego, a new bright red trolley, built in Germany, connects downtown with coastal suburban communities all the way down to the Mexican border. It runs often, costs a reasonable fare, is highly popular, and is being expanded. Last year, an amazing 86.9 percent of costs were covered by fares.

Los Angeles is building the first phase of its Metro Rail line. Growing numbers of communities have instituted bus shuttles to carry beachgoers from inland parking lots to coastal attractions. In the San Francisco Bay area, where Marin and San Mateo counties have come to regret 1962 decisions not to go along with Bay Area Rapid Transit, a new BART line is in the works to link downtown with S.F. International Airport. New Municipal Railway lines are planned for San Francisco, and there is a growing clamor for restoring ferry service to take the tedium out of Bay crossings.

In the ensuing pages we look at some old and some new ways to go to the shore and along the coast, by land and by water; and we offer some notions on promising developments in public transit.



Goodbye Gridlock, Hello Waves?

BY HEATHER CLENDENIN ANTILLA

IN THE NEW YORK CITY AREA, 13 new ferry runs have been started within the past two years, bringing to 15 the number of lines linking Manhattan with borough communities along the East River and with New Jersey cities on the Hudson River. The return of once-popular waterborne public transit was prompted in part by deterioration of the city's infrastructure. The Williamsburg Bridge was recently closed for more than a month as a structural hazard and was only partially reopened. Major transit routes have clogged despite added bridge decks and subway trains. According to Kate Ascher of the New York Port Authority, daily commuter traffic to Manhattan increased by 23 percent between 1980 and 1986.

The story is similar in San Francisco. One does not need to look at statistics to know that traffic congestion and inadequate mass transit are now major issues. Like the New York area, the San Francisco Bay region is experiencing a population surge that is expected to continue well into the next century. Lack of infrastructure maintenance and out and out system collapse are not yet primary issues here. The current concern is the existing system's inability to move ever-increasing volumes of people and freight from one point to another within the region in an efficient, safe, ecologically prudent, and economical manner.

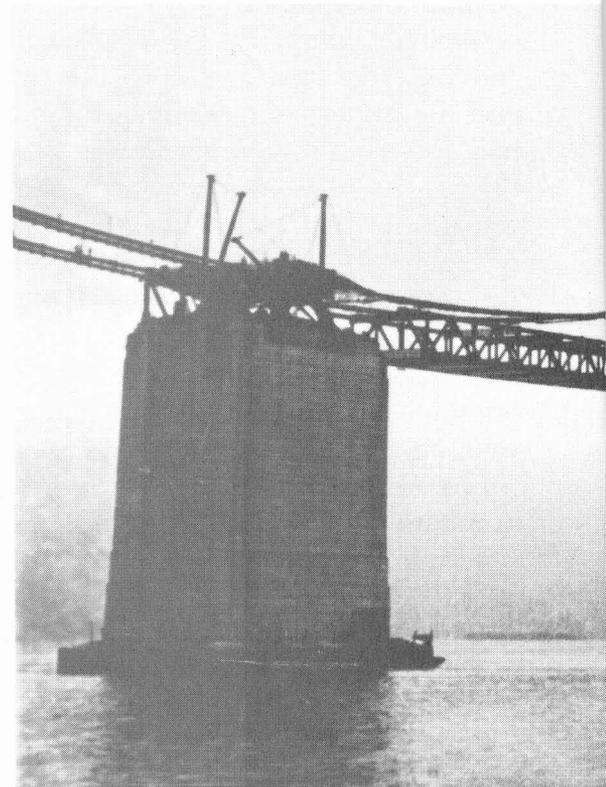
In other cities on this continent and around the world, ferries move people and freight across bays and inlets, up and down rivers and deltas. In Vancouver, B.C., ferries were a key component of the regional transportation system from the outset. In Seattle, by state mandate, ferries are a vital extension of the Washington state highway system. In Hong Kong, Leningrad, Venice, Helsinki, and other water-oriented cities, a wide variety of vessels carry passengers. Why aren't there more ferry boats on San Francisco Bay?

There used to be many. In 1929, San Francisco boasted one of the largest ferry fleets in the world. More than 50 ferries coursed on the Bay. In 1930 alone, these boats moved 6

million vehicles and about 60 million passengers from San Francisco's waterfront to the outlying communities of Vallejo, Sausalito, Tiburon, Richmond, Oakland, Berkeley, and Alameda.

Signs of Life

There are signs that travel by ferry may again become a part of life in the Bay area. The disappearance of waterborne service was deliberately engineered when bridges



were built. Now, the specter of imminent gridlock may catalyze a return to the mode of transportation natural to a waterfront city. What has so far kept this from happening here is a syndrome with several key elements: territorial competition and lack of communication among 17 separate public transit companies; absence of an agency willing and able to take responsibility for development and regulation of a ferry system; lack

of legislation allocating public transit funds for ferry services; and the complete absence of available public, multiuse docking facilities along the San Francisco waterfront.

Ferries used to be the economic lifeline of the Bay area. They were essential to the region's growth and shaped the pattern of early suburban development. Ironically, that growth led to the ferries' demise. But this was not just an inevitable result of progress, or of the nation's infatuation with automobiles.

Bay Bridge under construction, 1936, with passing ferry.



Some old ferry and railroad routes between San Francisco and Marin, from Redwood Railways, by Gilbert H. Kneiss.

COURTESY METROPOLITAN TRANSPORTATION COMMISSION



**San Francisco-Vallejo
ferry.**

The death knell for ferries came in 1936, with the opening of the San Francisco-Oakland Bay Bridge. On January 15, 1939, the inter-urban electric railways ceased to take commuters to the ferry and, instead, crossed the bridge. That same day, all commuter ferry service between San Francisco and the East Bay ended. Some passenger ferries continued until 1958, but they were not geared to commuters.

To ensure the success of the Bay Bridge and its bondholders, bridge tolls were set to just below ferry fares. In addition, the Bridge Bond Act of 1944 made it illegal to operate a passenger ferry service between San Francisco and the East Bay within ten miles of the Bay Bridge, preventing new lines from being established.

Already in 1927, the new Benicia-Martinez Bridge had put the Vallejo-Rodeo ferry out of service. Car ferry service across the Golden Gate ended 14 months after the 1937 opening of the Golden Gate Bridge. Passenger service ended in 1941. It was only reestablished in 1970, twenty-nine years later.

A Mistake Perceived

Eventually it became apparent that restricting competition with the Bay Bridge was not in the public interest. So, in 1986,

Senate Bill 846 was passed to reduce the restrictions. But its interpretation is still in dispute, as was evident from discussion at the recent symposium, "Ferry Service on San Francisco Bay," sponsored by the Metropolitan Transportation Commission and the University of California, Berkeley.

A Public Utilities Commission (PUC) representative thought the law authorized the granting of ferry permits now that original bridge bonds have been paid off and that Caltrans could issue new bridge bonds without restrictions against ferries. A Caltrans official disagreed. Later, Chuck Davis, chief of the public transit branch at Caltrans, said that this confrontation had "put Caltrans in an awkward position." He had since consulted Caltrans lawyers, he said, and found that the law does allow "new bonds that don't contain any restrictive language."

Some ferry service has been brought back, and more is projected despite the confusion surrounding the legal use of waters between the East Bay and San Francisco. The Golden Gate Bridge, Highway and Transportation District (GGBHTD) restored the San Francisco-Sausalito route in 1970 and, in 1976, added three vessels, two terminals, and a San Francisco-Larkspur route. Further expansion may include new landing sites at Hamilton Field, Las Gallinas Creek in North-

ern Marin County, and Port Sonoma. The district also hopes to acquire the railway right-of-way from San Rafael to Novato, and eventually to Sonoma, from the Northwestern Pacific Railroad for a possible light-rail corridor or carpool/bus lane that would link up with the ferry terminals. It already owns the stretch from Corte Madera to Novato. To the district's marketing director Bruce Selby, ferries are "a bright spot in transportation right now."

The Golden Gate ferries have not met costs, but the sole reason may not be lack of patronage. Ridership on the Golden Gate Bridge District's buses has decreased, while on the ferries it has increased. Cost overruns can at least in part be explained by capital outlays that, in retrospect, proved unwise.

The three vessels bought in 1976 burned 600 gallons of gas an hour—200 gallons for each of three gas turbine engines. "Fuel was 35 cents a gallon then. It wasn't seen as a big factor," an official said. The ferries stirred such a wake that Marin property owners sued, claiming shoreline damage. So the district reduced speed and ran only two engines until 1984-85, when it retrofitted the boats with diesel engines, bringing fuel consumption down to 186 gallons an hour per vessel, saving 60 percent on fuel and maintenance costs—but incurring a conversion cost of \$3 million. It is now considering replacing its oldest ferry with a different, high-speed craft.

Meanwhile, the Washington state Department of Transportation runs ferries built in San Francisco in 1927, which used to run on San Francisco Bay and were rebuilt in 1958 for use on the Puget Sound.

Tourist Ferries Aid Commuting

The only other major ferry service on the Bay is that provided by Red and White Fleet, owned by Crowley Maritime Corporation. It runs nine passenger vessels from two San Francisco locations to Tiburon, Sausalito, An-

gel and Alcatraz islands, and Vallejo. Its service is geared to tourist use, which is more lucrative than commuter service and allows costs to be shared.

The Vallejo service was launched to service visitors to Marine World Africa USA, which moved from Redwood City to Vallejo in 1986. Five commuter runs were added because of apparent interest among North Bay residents. After ridership proved to be far below expectations, however, these were reduced to one a day. The service is still losing money, a spokesman said, and the company has applied to the PUC for permission to discontinue it by year's end.

"I think we're ahead of our time. I don't think people on the West Coast are ready for mass transit. People are too attached to their cars," commented Randy Collar of the Red and White Fleet. But ferry advocates contend that a little promotion would go a long way to bring riders.

"If I didn't live right on the water and see it go by every day, I would never have known that the ferry even existed," said Cindy Detwiler of North Bay Water Commuters, a citizens group formed to advocate the ferry. She said that ridership increased 13 percent in 12 weeks after her group spent \$300 on a promotional flyer that was distributed to commuters and included in North Bay residents' water bills.

Collar acknowledged that "perhaps we didn't do as much as we should have in the beginning." The company now plans a radio ad campaign in Vallejo.

Experience with shuttle bus lines on the coast has recently shown that when driving and parking problems become severe, people will go another way—if the alternative is convenient and well promoted. [See article by Gail Odom Rosen].

The Vallejo commuter ferry would almost certainly gain riders after a \$235 million road improvement project begins in November on interstates 80 and 680, aggravating what is already a commuter nightmare. The city of Val-

lejo and North Bay Water Commuters, a citizens group, hope that some of the small sum allocated to mitigating the anticipated congestion will go toward restoring or maintaining ferry service. The city is anxious to preserve its water connection with San Francisco and has called for ferry service proposals.

What's in the Wind

Among new ferry services now being considered is one by the Harbor Bay Isle Association to link its business park in Alameda with San Francisco. "We'll go ahead without government subsidies. We'll try to get the business started and look for help later," said Scott Cowan, who directs this venture for the association, backed by extensive market and technical research. Cowan is confident that there are many forms of water transport in the Bay's future, even in the South Bay, where shallow waters have so far discouraged traditional ferries. He is not alone.

"We have a beautiful waterway here in our own back yard," said Vello Kiisk, acting director of the Port of San Francisco. He fore-

**"IT'S THE ONLY BAR IN TOWN
THAT WILL TAKE ME HOME."**

—PORT EMPLOYEE

sees small ferries or water taxis running every 10 to 15 minutes and traveling between the Ferry Building and Fisherman's Wharf as well as from Candlestick Park to the Ferry

Building, with stops along the way.

"What a wonderful experience to just sit and let the world go by at the end of the day," he said. "As one of my employees, who regularly rides the ferries, said, 'It's the only bar in town that will take me home.'"

So these are straws in the wind. Still, millions of people who could ride ferries in a safe, efficient, ecologically prudent, and economical manner continue to jam bridges, BART, and the freeways. What prevents this viable transportation alternative from making a regional comeback?

First, no regional agency, public or private, is willing to take the lead in encouraging, developing, and advocating a regional ferry system, as well as other alternative forms of transit. No one now provides direc-

tion in dealing with the maze of permitting processes. There is no policy that begins to define the financial responsibilities and role required to initiate a ferry service.

Current state policy "guarantees the financial failure of a ferry system in a region where ferries could do a great deal of good," said Alan Pendleton, executive director of the Bay Conservation and Development Commission. "What is needed is a state mandate that tells an existing regional transportation agency what to do and gives it the resources to do it."

Second, there is too little communication and coordination among the 17 independent transit operations and various city and county governments. For example, the Golden Gate Bridge District runs a free shuttle service from the Ferry Building to San Francisco's South of Market area and the Civic Center. But by provisions stipulated by the San Francisco Municipal Railway, shuttle buses may only pick up Golden Gate Ferry commuters—even though the Red and White Fleet's passengers from Vallejo arrive in time to catch the same bus. So Vallejo commuters must pay full fares on either the Muni or BART to complete their journey.

"All transportation systems in the Bay area should logically fit together. They should flow," commented Jack Davis, chief of staff for state Sen. Quentin Kopp, chairman of the Senate Transportation Committee. "Ferry service should have curbside services which maximize integration of the systems and minimize time delays for the commuter." Sen. Kopp has established a Rapid Water Transit Task Force.

The third major obstacle is lack of legislation allocating public transit funds for waterborne transit. The state provides some subsidy for various forms of land-based transit and maintains highways with gas tax revenues. But these monies are unavailable for water transport. A consultant to the Senate Transportation Committee said that this is due to "historical reasons. The demand is not there. A small amount of these funds [gas tax and public transit] is, however, going to bicycles."

The fourth and final major issue is the complete lack of public multiuse docking facilities along the San Francisco waterfront.

Vello Kiisk foresees a facility built and maintained by the San Francisco Port Commission, with individual ferry operators paying landing fees. However, none is actually planned. Currently, ferry operators own their floating or stringer docks but lease water rights from the Port. There is a certain amount of specificity. For example, although Golden Gate Transit is amenable to sharing dock space, its slips have been built to accommodate only its vessels.



This does not exhaust the list of obstacles to development of a modern, efficient regional ferry service. But public interest in the option of water transport—forgotten for years—is growing with the realization that current transportation systems will be ever less adequate. This interest was clearly evident among the maritime experts, public officials, and citizens who gathered for the earlier-mentioned symposium on ferries.

The potential for a solution exists. Role models also exist. New York is one. It was the city of New York that finally took a stance and issued a clear "Waterborne Transportation Policy Statement." The city now acts as facilitator for the private ferry operators by providing docking facilities, helping to secure necessary permits, acting as regulator, and helping with public relations. No public subsidies are offered, yet ferry use in the New York area is expected to grow.

Ferries make sense in a water-oriented metropolitan region—elsewhere in the state as well. In Southern California, the Red and White Fleet presently runs six vessels from Long Beach and Los Angeles harbors to two landing sites on Santa Catalina Island. This is a remnant of what used to be a far more extensive water transit system in the region. There are hopes—not yet tangible enough to

be called plans—for ferry service linking San Pedro Pier (if and when it is rebuilt after storm and fire damage), Santa Monica Pier, and Malibu Pier, with van shuttles to take passengers into the Santa Monica Mountains National Recreation Area. Proponents point out that such a service would help clear the chronically jammed Pacific Coast Highway while introducing more people to the Santa Monica Mountains National Recreation Area. Susan Mullen, of the Santa Monica Pier Restoration Corporation, said the idea has met with much enthusiasm among citizens groups and in the National Park Service.

Ferries are no panacea for the coast's growing traffic tangles. But they could alleviate these tangles greatly, while enhancing the quality of life for waterfront city dwellers. Might it not be time to form a new independent group, or to relegate the focus and responsibilities of an existing agency, to deal with the inevitability of water transportation?

The people of the Bay area cannot afford, nor do they deserve, the collapse of a bridge, or regional gridlock. San Francisco Bay should not be viewed as an obstacle to traffic but as a resource, to be used wisely as a link among the people who live in its region. □

Heather Clendenin Antilla is a landscape architect and granddaughter of one of the first Bay Bridge tolltakers.

Golden Gate ferry.

COURTESY MITC

Relief from Traffic Snarls

BY GAIL ODOM ROSEN

IT'S A HOT, SUNNY weekend morning. You decide to forget the laundry and spend the day at the beach. So you load the car with beach towels, chairs, food and drink, perhaps also the dog and your significant other, and you head for the coast. And then you remember what else you forgot: the traffic.

Eventually you arrive at the last intersection, wait through several green lights for your turn to cross, and are almost there. Now all you need is a parking space. The pay lot near the beach is full, of course, so you circle neighborhood streets until you realize only residents are permitted to park there. In nearby commercial areas you see 75 cents an hour meters. By the time you have finally shed your vehicle—several long blocks from the warm sand you had in mind—some of the morning's joy has worn away.

A familiar scenario. But there is an alternative, and it is increasingly popular on the California coast. More and more communities have introduced shuttle systems designed to get people out of their cars before they clog beach neighborhoods. Seven publicly operated systems now exist between San Diego and Santa Cruz. In addition, at Dana Point Harbor in Southern Orange County, a privately run shuttle is operated by the Dana Point Harbor merchants' association. Recent attempts to operate private shuttles in Redondo Beach and Manhattan Beach proved unsuccessful, however.

A successful shuttle service is reliable and runs often along popular routes. Fares are low or free. Parking is provided near the boarding stop, also at low price or free. The service is locally supported and viewed locally as necessary. It is aggressively and imaginatively promoted. It exists in coastal communities where traffic congestion and lack of parking near the beach have made driving an unattractive alternative. The seven public shuttle systems here described are all successful in their own unique settings. They have operated from one to ten years, mainly in the summer. (See accompanying charts for more details.)

Santa Cruz Shuttle

Santa Cruz is famous for its swimming and surfing, and also for its colorful boardwalk amusement park. Just west of the boardwalk and beach, the Santa Cruz wharf is also a major attraction with restaurants, shops, and fishing spots.

But getting there is a matter of navigating "between a zoo and a gridlock," says Spencer Wyant of the Santa Cruz Metropolitan Transit District. "It's an incredible mess." Therefore, for 9 of the past 12 years, the city of Santa Cruz has operated a beach shuttle. The shuttle runs from Memorial Day through Labor Day weekend.

The 45-passenger bus starts at the government center parking lot and runs to the waterfront, stopping en route at the Metro transit center, in front of a retirement home across the street from the Boardwalk, and at other well-chosen spots.

Of the 23,000 shuttle passengers in 1986, three-fourths were headed for the Boardwalk, and 89 percent said their main reason for riding was to avoid parking problems. A surprising 53 percent were local residents.

Shuttling to the beach is attractive for several reasons: metered parking is 75 cents an hour near the waterfront and is scarce. Parking availability has been further diminished by the start of a resident permit parking program in the vicinity of the beach, and by elimination of parking along congested routes during peak use hours to create shuttle lanes. The shuttle now can move quickly, even in dense traffic.

This summer, the city has cut the interval between shuttle runs to 10 to 15 minutes by adding a third bus. A separate free shuttle service also runs from a remote parking lot, for wharf employees and visitors.

Service was improved this year through the efforts of a new Beach Shuttle Task Force, composed of public officials and business people, which raised funds by introducing day sponsorships: a business or organization may pay the cost of a day's service (\$300), and

in exchange may promote products, events, or its name on buses that day by putting up signs or passing out samples.

The Seaside Company, which operates the Boardwalk, sponsored the shuttle one day in May during a special corporate event. Sponsors of the Wharf to Wharf race in July will run the shuttle free, with extended service, on the day of that event.

The 1987-88 operating budget of \$29,500 includes \$17,600 from the city's hotel tax, \$4,400 from fares, and \$7,500 from business and service organizations through sponsorships. The business community has also pledged additional funds for more promotion.

Since it was launched in 1976, the shuttle has been operated by the city of Santa Cruz under contract to the Metropolitan Transit District. But the City Council has urged a shift to wholly private funding and operation by 1991. As a first step toward becoming an independent body, the task force will be transformed into a board of directors.

Capitola Beach Shuttle

Just south of Santa Cruz on Monterey Bay, the small beach city of Capitola, said to be the oldest seaside resort on the Pacific, offers excellent family swimming beaches, surf sports, and picturesque Victorian buildings. The wide esplanade, lined with benches facing the ocean, leads to a sandy beach and a municipal fishing wharf. Capitola is so delightful that, according to City Manager Steve Burrell, "some residents don't want to encourage more tourists by providing more . . . facilities."

Visitors, however, bring revenue. The city receives \$85,000 a year in hotel taxes, \$25,000 from the village business license parking assessment fee, and \$300,000 from parking meters. The shuttle is one way to welcome visitors while at the same time diminishing negative impact on residents. Burrell estimates that up to 30,000 people rode the shuttle last year, about the same number as in 1986.



SAN DIEGO TRANSIT

The buses run daily in summer months and on winter weekends, winding from the free parking lot through outlying residential areas and the thriving commercial district, to the esplanade. Signs visible from Highway 1 direct visitors to the parking lot adjacent to New Brighton Beach State Park.

As in Santa Cruz, congestion was the catalyst for starting the service ten years ago. Installation of meters in the commercial area aggravated parking problems on residential streets. Then parking permits for neighborhood residents were introduced, further stimulating interest in better ways to get to the shore. A young man from Merced recently chose to ride a shuttle, for instance, because he had received a \$30 parking ticket for leaving his car on a residential street.

The first shuttle was a horse-drawn wagon that carried only a handful of people and had limited success. The city then contracted with the Santa Cruz Metropolitan Transit District for a more conventional approach. The \$75,000 cost is met from the city's general fund. Costs are \$75,000 a year.

The shuttle has helped to control peak conditions at the beach. To provide more con-

venient access at other times, in 1985 the city bought a mobile home park near the beach and redeveloped half of it as a metered parking lot, doubling available parking space in the beach area.

Monterey FreeShuttle

Cannery Row . . . is a poem, a stink, a grating noise, a quality of light, a tone, a habit, a nostalgia, a dream. Cannery Row is . . . sardine canneries of cor-



COURTESY MONTEREY SALINAS TRANSIT

GAIL ROSEN



rugated iron, honky tonks, restaurants, and whore houses, and little crowded groceries, and laboratories and flophouses.

The nostalgia is about all that remains of the Cannery Row John Steinbeck described in a 1945 book by that name. Canneries and houses of ill repute have been replaced by hotels, shops, and a unique aquarium. But the crowds that flock to Monterey have continued to grow, drawn by both history and by present attractions.

In 1984, the instant success of the Monterey Bay Aquarium led an astounded mayor to say nobody had expected such traffic and parking problems. In response to the crush, city officials contracted with Monterey-Salinas Transit to operate a free shuttle service linking downtown, wharf, Cannery Row, and the aquarium. Long-term parking was provided at a city garage for \$3 a day. The garage is close to several hotels and to the wharf, making it easy to board the shuttle.

Buses run daily during the summer, every 15 to 20 minutes. The ten-minute ride offers stunning views of the bay and attracts residents as well as visitors. One recent afternoon, an elderly Pacific Grove couple was aboard, having taken a long walk to the waterfront and now riding part-way home. About 20 percent of the riders are locals.

The shuttle works because it is free, frequent, and fun. Its success has exceeded all expectations. An amazing 87 percent of its operating costs are covered by parking revenue from passengers who leave their cars at city garages.

Promotion has been a major key to success, according to Jo Lyons, administrative assistant in Monterey's Public Facilities Department. She said most riders learn of the service from on-street signing. Many others find out at hotels, motels, or by radio. Signs posted along major roads entering Monterey direct visitors to listen to a local AM station for up-to-date shuttle information.

Here as in Capitola, however, the successful effort to get people out of cars has been affected by the provision of new and inexpensive parking space near the beach. Interim parking lots at the south end of Cannery Row offer 350 parking spaces and charge 50 cents an hour. The city has announced it will reduce winter shuttle sched-

ules. By December, a 1,000-car parking lot will open two blocks from the aquarium in Cannery Row, and shuttle service will be discontinued. The city may find that it has to reinstitute the shuttle as Cannery Row continues to develop.

Santa Barbara Shuttle

Further down the coast, Santa Barbara shoppers and visitors can ride minibuses for ten blocks along State Street, the city's main artery, between 10 a.m. and 4 p.m. daily, every ten minutes. There are stops, upon request, at every block. The Santa Barbara Transportation Corporation operates this shuttle under a city contract.

This downtown-oriented service began in 1985 as a commuter shuttle between two commuter parking lots and downtown and was expanded to run on State Street in 1986. The city plans a further extension to the waterfront and the popular Stearns Wharf after a highway underpass construction project is completed.

Annual operating costs of \$222,500 are met mainly by city general funds, though parking lot revenue contributes 29 percent of the total cost. The city is exploring additional funding sources. Last winter, local business sponsors paid to repaint all four buses in a holiday theme. Each business' employees then rode them in the downtown Christmas parade. The shuttle is also promoted on radio, in newspapers, posters, and brochures.

Angela Dukes, transportation management coordinator for the city, attributes the shuttle's success to effective marketing, community support, high visibility, attractive and comfortable vehicles, personable shuttle drivers, and reliable, convenient service.

Agoura Hills/Malibu Beach Bus

If you're a teen-ager in the Greater Conejo Valley, one place you'll almost certainly want to go is Malibu. But how to go? Until recently the only way was to drive.

This made the city of Agoura Hills think of providing a shuttle as a safer alternative, modeled after a successful one already running in the Topanga Canyon area of Malibu, 15 miles from Agoura Hills.



A Capitola beach shuttle stop.

A shuttle bus operated by a private contractor now makes five round-trips daily, Monday through Saturday, June 27 through September 3, stopping at Agoura High School and four other locations. Riders under 18 without an adult companion need a picture pass to board. The pass, instituted to ensure appropriate behavior on the bus, is available upon application by parents.

This shuttle costs a modest \$30,000 annually and is funded from the city's share of Proposition A, the county transportation tax (earmarked for transit in Los Angeles County), and \$6,000 from fares. Audrey Brown, recreation supervisor at the Agoura Hills Parks and Recreation Department, which manages the shuttle program, said the beach bus has met their expectations. Westlake Village, another Valley community, has launched a similar program.

DASH Venice

What Greenwich Village is to New York, Venice is to Los Angeles—a picturesque district with a bohemian tradition and plenty of local color. High rents have driven many of the artists who made Venice famous out to obscure locations, but the mystique remains and Venice Beach remains an attraction.

In 1987, parking and traffic congestion prompted the city of Los Angeles to develop DASH ("Downtown Area Short Hop") Venice, a shuttle running from Washington and Venice boulevards to the beach every 15 minutes.

"The service was very successful last year. It is a good system," said Helene Jacobs, transportation planning associate for the city's transportation department.

There is a \$3 shuttle parking fee, which allows all occupants of the car to ride the shuttle free. Round-trip fare is 50 cents. Fees from parking and the shuttle, both operated by private contractors for the city, offset 33 percent of almost \$30,000 in operating expenses. The balance comes from the LA County half-cent sales tax for transit.

Dedicated parking is vital to the success of DASH Venice. Planned construction of 120 parking spaces for shuttle passengers may increase ridership.

San Diego Sun Runner

Pacific Beach and Mission Beach are densely populated residential beach communities with frontage on the ocean as well as on Mission Bay. In the 1920s, the Belmont Park amusement center was constructed at Mission Beach to stimulate real estate sales. A large swimming pool, the Plunge, remains open, and the roller coaster is being restored. Crystal Pier in Pacific Beach, opened in 1926 to attract land buyers, is the only West Coast pier that provides lodging over the ocean. The communities are connected along the ocean and the bay by promenades popular with strollers, bicyclists, and skateboarders.

Beach traffic is a concern for the Pacific and Mission Beach communities, and parking spaces are in short supply. In 1982, the city of San Diego initiated a private jitney beach shuttle during the peak summer months. The fare was \$1 each way—and only 14 passengers chose to ride on an average day.

In 1983, at the city's invitation, San Diego Transit launched the Sun Runner, with a 25-cent fare. More than 10,000 people rode it the following year. In 1985, small, easy-to-manuever trackless trolleys were introduced, with strong promotion, and the route was tailored to beachgoers' needs. Ridership jumped to 17,000.

Beach Shuttles

	Santa Cruz	Capitola	Monterey	Sta. Barbara	Agoura Hills	Venice	San Diego
Route	Dwtn-beach	Lot near Hwy 1-beach	Dwtn-Cannery Row-wharf-aquar	Dwtn along State St.	High school - Malibu beach	Venice Blvd - beach	Pacific beach-Mission beach
1988 Schedule	Summer wkends 11am-6pm 10-15 mins	Apr-Sep wkends 9am-10pm 15 mins	Summer daily 9am-10pm 15-20 mins Fall-irreg'ly	Wkdays all year 10am-4pm 10 mins	6/27-9/3, M-Sat 8:15am-6:40pm 2 hrs	Summer wkends, hols 9am-7pm 15 mins	Summer, Wed-Sat 10am-6pm 20 mins
Round-trip Fare	50 cents	Free	Free	Free	\$1.50	Free w/ pd prkg; 50 cents	50 cents
Shuttle Prkg # of Spaces	Free 750-850	Free 150	\$3/day 850	\$20/month 324	Free 328	\$3/day 130	Free 300
Riders/ Service Hour	78	63 (summer) 14 (winter)	192	29	20	132	46
Riders/ Service Day	511	570 (summer) 130 (winter)	2,500	432	200	1,184	368
Future Plans	More routes	Summer only	Ends 12/88	To wharf and beach	---	Expanded routes	---

Shuttle Funding Characteristics

	Santa Cruz	Capitola	Monterey	Sta. Barbara	Agoura Hills	Venice	San Diego
Annual Operating Budget	\$29,500	\$75,000	\$155,000	\$222,500	\$30,000	\$29,200	\$36,400
Program Funding (\$1000s)	17.6 Hotel tax 7.5 Private 4.4 Fares	75 Gen fund	135 Prkg 10 City 10 Aquarium	65.4 Prkg 157.1 Gen fund	20 County transit tax 6 Fares	19.7 County 1/2¢ tax 9.5 Parking	30.5 Hotel tax 5.8 Fares
Fare Box/ Parking Fee % Coverage	15%	0%	87%	29%	33%	33%	13%
City-owned Shuttle Parking Lots?	Yes, & one from county	w/bank loan; refin w/city bond issue	Yes--City bond issue	Yes--Redev funds	No--School dist allows use of lots	Yes	No--School dist allows use of lots
Parking Meter Fines? (shuttle area)	Yes	Yes	Yes	No	No	Yes	No
Beach Resident Permit Prkg?	Yes	Yes	Yes--Dwtn	Yes	No	No	No
Contact Person & #	Matt Farrell 408 429-3621	Steve Burrell 408 475-7300	Jo Lyons 408 646-3770	Angela Dukes 805 564-5392	Audrey Brown 818 889-9114	Helene Jacobs 213 485-4695	Linda Walker 619 238-0100

The Sun Runner illustrates the importance of marketing: promotion diminished in 1986 and ridership flagged. (The weather was also less favorable than usual.) The following year, a major promotion effort was mounted. Route maps were displayed at shuttle stops. Posters went up in shop windows in the beach area; flyers were distributed. A print

ad urged: "Don't leave for the Beach Without It." And behold, ridership in 1987 was 20,220—a 66 percent increase over 1986. To Linda Walker, the transit company's promotion specialist, this gain is phenomenal and shows that the public will use the shuttle when it is readily available and when the automobile has become an obstacle.

The 1987 operating costs for the Sun Runner were \$36,400. The city contributed \$30,500 in hotel tax funds, and fares brought in \$5,800. This year, the city approved slightly more than the estimated cost, for promotion. "We expect ridership to be the same as last year or better—unless we have a lot of bad weather. When it's grim, people don't come," Walker said.

Recipe for Success

What do all of these shuttles have in common that is essential to their success?

Local Need and Support for a Shuttle System. Each of the coastal areas described is popular and crowded. Streets are heavily congested and parking is tight. In some cases, resident permit parking programs and parking meters further discourage parking near the beach, motivating visitors to ride the shuttle. Local residents, business owners, and government officials recognized that these conditions existed and had the local political will to begin a shuttle system.

Shuttle System is Well-Conceived and Well-Operated. Shuttles have to be reliable, run frequently, and operate on routes when and where people want to go. Adequate parking must be available in a garage, at a lot, or on the street, since most patrons will drive to the shuttle stop.

Shuttle System Must be Aggressively Marketed. Potential patrons need to be informed about the existence and advantages of the shuttle. Signs are important in directing motorists to the shuttle parking and to shuttle stops. Route maps at shuttle stops may be helpful. Some cities have produced written material and have made it available at the Chamber of Commerce and local hotels and motels. Publicizing the shuttles in the local media and other obvious marketing efforts can attract riders. Flyers at local events and posters in merchants windows have been used. Shuttle promotion is one area where creativity can be used to the utmost advantage.

Shuttle System Must be Financially Supported by Community. The annual costs of the shuttle systems examined here range from \$29,200 to \$222,500, though only three of the systems cost more than \$45,000. The Monterey

FreeShuttle, the second most costly at \$155,000, has the highest fare box coverage. An amazing 87 percent of costs are reimbursed by parking garage revenue. Having this extent of fare box coverage is certainly helpful, but Capitola has operated its shuttle for ten years without any direct fare box coverage at all. Each system has a unique formula for paying for operating and promotion costs. In addition to fare or parking fees, other sources of public funding include hotel tax revenue, general fund revenue, parking district revenue, and special transportation taxes. Santa Cruz has also relied in part on contributions from the businesses that benefit from having the shuttle service.

Future of Shuttle Systems

The Santa Cruz, Santa Barbara, and Venice shuttles will be adding new routes to meet community demand. Capitola has reached a good level of service after many years of operation and, with the recent development of a large metered parking lot, will only operate its shuttle in the summer. The Agoura Hills and San Diego systems anticipate no changes in the near future.

Unfortunately, Monterey will cease operation entirely in December, when the 1,000-car parking garage opens near the aquarium in Cannery Row.

Will other communities initiate new shuttle systems? The success of these seven systems and the continuing growth in coastal development and recreation seem to suggest that the answer is yes.

For more information on shuttle operations, contact Conservancy Urban Waterfronts Program staff at (415) 464-1015 or the contact people shown on shuttle funding chart. □

Gail Odom Rosen is a project analyst for the Conservancy's Urban Waterfronts Program.

By Rail Through the Redwoods

BY KRISTI FARNHAM

AT THE TURN OF THE CENTURY, many coastal cities and towns were linked by trains. The Northwestern Pacific Railroad Company carried freight and passengers between Eureka and Sausalito, and connected with ferry service to San Francisco and San Quentin. Much of what is now Highway 1 between San Francisco and Santa Cruz was, between 1905 and 1920, the route of the Ocean Shores Railway with the slogan: "It Reaches the Beaches."

Now, the few surviving passenger excursion rail lines are mainly old-fashioned oddities to be experienced as a vacation sideline. But they do constitute valuable economic and recreational coastal assets. Among the survivors are the California Western Railroad (better known as the Skunk Train) in Mendocino County and the Roaring Camp and Big Trees Narrow-Gauge Railroad near Santa Cruz.

The conductor had a dark bushy moustache and wore a blue cap, frayed black bow tie, and red vest complete with a pocket watch which lent him an air of old-fashioned, cheerful authenticity. "All Aboard!" he shouted, just like I'd always imagined a conductor should, as the last passengers hurried from the depot toward the Skunk Train in Fort Bragg.

With about 50 other passengers, I boarded the "Super Skunk," a three-car, narrow-gauge, diesel engine train, eager to experience the beautiful coastal redwoods along the route toward Willits. The drizzle had not dampened the enthusiasm of this crowd—families with excited children, couples taking a break from winery touring, vacationers, and train buffs.

The train left Fort Bragg and the Pacific coast behind and traveled along Pudding Creek until we entered a deep mountain tunnel. At the other end we met up with the Noyo River and followed its course past hills cleared for grazing and into rich stands of second-growth redwoods.

As we traveled along between 15 and 20 miles per hour, the conductor, Richard Mitch-

ell, spoke of the railroad's history. It was built in 1885 to transport lumber, and passenger service began in 1904, opening the interior areas of what is now Mendocino County.

The train was dubbed the "Skunk" in 1925 when gas engines replaced the steam engines and lumbermen joked that "you could smell 'em before you could see 'em." Now running on diesel, the Skunk has become mainly a tourist attraction, although it also transports lumber from the Georgia Pacific Mill in Fort Bragg to the Northwestern Pacific line in Willits. Last year, it moved 600 freight-car loads of lumber. It also carries groceries, mail, and people to locations difficult to reach by car. In the summer, children ride the Skunk to Camp Mendocino (for Boy Scouts).

Riding the Skunk

A little over an hour into the ride, we reached a forest clearing with picnic tables, restrooms, and a stand selling hot dogs, cocoa, coffee, beer, wine, and assorted munchies. Known as Northspur, it is the halfway break for passengers headed for Willits and the turnaround point for those on the shorter trip. Riders used the 30-minute layover to stretch their legs, warm up with hot drinks, and eat lunch.

Just before we reboarded, the drizzle let up and the sun broke through the clouds. Now, as we headed back toward the coast, bare patches of clear cutting on the hillsides were more visible.

The Georgia Pacific Company, which owns the land and the railroad right-of-way, sold the Skunk to Kyle Railways Inc. of San Francisco last year. Georgia Pacific continued logging the area until local citizens, passengers, and others interested in preserving the route's natural beauty petitioned the company to stop clear cutting near the tracks. Recently, Georgia Pacific agreed to retain a 160-foot corridor on each side of the tracks, according to a spokesperson for the California Public Utilities Commission (PUC).

The survival of this remnant of Califor-



In 1909, Pacifica's Rockaway Beach was only 30 minutes by train from S.F.'s 12th and Mission depot.



Waiting to board the Skunk in Fort Bragg.



Redwood-watching from the Skunk's observation car.

nia's once-large railway network has been tenuous for years. The annual passenger count has been steady at about 70,000 for the past ten years, 85 percent riding in summer months. The lumber industry has declined over the last few decades and with it, a portion of the Skunk's revenue from transporting freight. Today, most of the Skunk's income comes from summer tourists. A fare increase last year led to a small profit, helping to offset the previous years' losses. The adult fare round-trip ticket from Fort Bragg to Willits costs \$20 and children pay \$10—a steep price for a family excursion. The railway has sought to eliminate off-season runs but failed to get approval from the Interstate Commerce Commission and the state PUC.

"The future of the Skunk depends on Mendocino County's ability to promote itself," said Jerry Allen, stationmaster at Cal-

ifornia Western Railroad. He would like to see the Skunk eventually become a historical site associated with the state Parks and Recreation Department while remaining a private enterprise.

Others, including Richard Mitchell, hope to see the right-of-way someday developed into a park. "We could have hiking trails, campgrounds, and more picnic areas," he said. "The Skunk could provide the transportation."

Redwood Disneyland

While the Skunk has historically been a working lumber train which sidelined in tourists, the Roaring Camp and Big Trees Narrow-Gauge Railroad outside Fulton (nine miles northeast of Santa Cruz) was built for recreational use and for the preservation and restoration of steam trains. It is one of the few operations in the world which runs all three types of steam locomotives (the Shay, the Heisler, and the Climax). It also is one of the few surviving privately owned tourist passenger railroads in the United States showing a steady profit, said Jeanette Guire, marketing director for Roaring Camp, Inc. Most tourist railroads today are either owned by large conglomerate corporations who sell out after a couple of years, or are government-subsidized historical monuments, she explained.

The Roaring Camp train, which runs from the Felton depot to Bear Mountain and back, carried approximately 150,000 passengers last year. The Santa Cruz, Big Trees & Pacific Railway (also operated by Roaring Camp,

Inc.), which goes from Felton to the Santa Cruz boardwalk, carried almost the same number of travelers between May and October. The Roaring Camp train maintains a stable profit, and ridership has increased steadily 5 to 6 percent annually for the past few years. It is a much larger, more commercial operation which is not required to operate under ICC or PUC regulations as is the Skunk. Winter service is limited and the rides are shorter and proportionately more expensive. An adult's ticket for the 75-minute round trip to Bear Mountain costs \$10.50, children ride for \$7.50. The round trip from the Felton station to the Santa Cruz boardwalk takes two hours, not counting layovers, and costs \$16 for adults, \$8.50 for children.

A Chuckwagon Barbecue is offered from noon to 3 p.m. between May and October, and the Roaring Camp players perform a vaudeville act three times daily on Saturdays.

Built to look like an Old West pioneer town, the train depot, a general store, and a refreshment stand have a Disneyland flavor. They are surrounded by a park area with room for picnicking and softball. One recent Sunday, for the last of three scheduled departures, 130 passengers, many clutching ice cream cones and sodas, boarded open cars lined with wooden benches at the depot. Before leaving, engineers filled the train's holding tanks with 800 gallons of water—enough for the trip to Bear Mountain and back—to power the steam engine.

During the ride, the train passed within touching distance of the coastal redwoods. Two middle-aged sisters sitting across the car from me were amazed at the height and beauty of the trees. "We're from Wisconsin," one said. "We came to Santa Cruz for our niece's wedding." We debarked briefly at Cathedral Grove, a circular stand of first-growth trees (some are over 1,000 years old and up to 250 feet high), where the conductor gave a short history of the redwoods.

The Roaring Camp and the adjoining Henry Cowell Redwoods State Park sit on 350 acres of land bought in 1867 as a preserve, so the trees' survival is ensured. A steam-powered lumber mill, run by Roaring Camp, processes the few trees felled for safety reasons or by winter storms.

At Bear Mountain, we picked up a half dozen hikers and picnickers who had come



KRISTI FARNHAM

Engineer

Filling the water tanks of the Roaring Camp train for the trip to Bear Mountain.



KRISTI FARNHAM

up on an earlier train. A small blond boy to my left asked anxiously, "Are there grizzly bears up here that'll eat me, Mom?"

Back at the station, he made a beeline for the ice cream stand. Other riders picked out shady spots on the grass and sat down to relax or strolled over the covered bridge at the entrance, heading back to the parking lot.

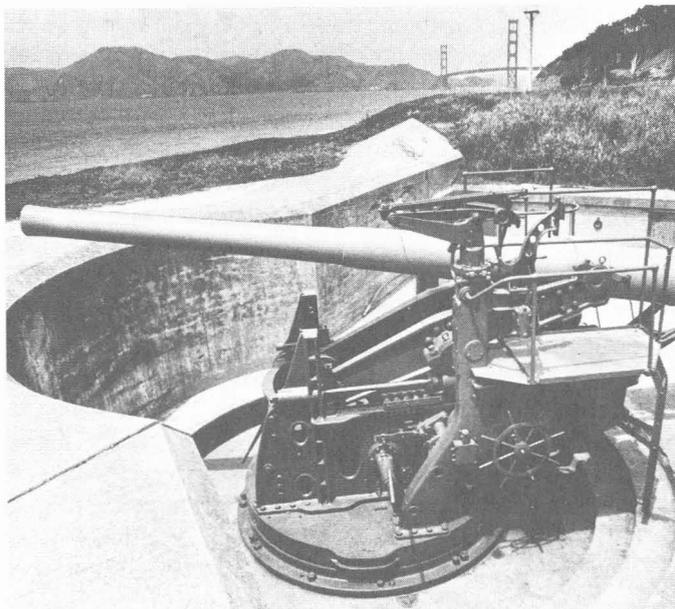
One passenger, remembering hopping on and off trains in the Netherlands—where an electric rail network links the country as efficiently as New York City is linked by subways—wondered why there aren't more trains connecting places along the coast. Maybe someday, as driving becomes ever more expensive, trains will return to their once-vital role in providing public transportation in California. Until then, a train ride is a wonderful way to see our state's spectacular scenery and enjoy a trip to the past. □

Kristi Farnham is an intern at Waterfront Age and a graduate student at Mills College.

PATTERNS OF HONORABLE DISCHARGE

BY TOM MCKEAG

Ocean currents, wind, and rivers may shape the coast, but in the short term, man's impact has often been greater. In California as throughout the world, the coast has historically been a defense perimeter. Modern weapons systems have rendered old fortifications obsolete, allowing their conversion to peaceful uses. Many treasured coastal landscapes are now protected for everyone's enjoyment because, for a long time, they were in the hands of the armed forces. Highly creative patterns of conversion can be seen, especially in the San Francisco Bay area.



CALIFORNIA IS KNOWN for change, and on the coast it can be dramatic, whether caused by nature or man. An important role in this change has been played by the armed forces, which have made sweeping modifications to the landscape in the name of national security. Close to 4 million acres of land in the state are controlled by the federal government and reserved for the military. Of this total, more than 254,000 acres are along the coast. In some areas, as in Monterey, San Diego, and San Francisco, military facilities occupy once strategic sites that are now blue-chip urban real estate. In others, they hold the only remaining expanses of pristine wilderness [See Winter 1988, *Waterfront Age*]. But over the years, as warfare requirements changed, thousands of acres have also been converted from military to public uses. Many of the coast's most scenic parks, preserves, and historic or cultural sites would be unavailable now for everyone to enjoy were it not for their military history, which prevented other kinds of development.

Examples abound, from Fort Ross, the Russian outpost built of wood in 1812 in Mendocino County; to Coast Guard lighthouses converted to hostels; to the ten-square-mile Golden Gate National Recreation Area (GGNRA) created on coastal promontories no longer needed as strategic defense outposts; to the University of California, San Diego, which sits on land that was formerly a Marine Corps training base.

In recent decades, accelerated rates of technological advancement have increased the rate of weapon and facility obsolescence. The strategic importance of the coast has lessened as the range of weapons has increased, widening the field of war—widening it right off the California map. With Intercontinental Ballistic Missiles (ICBMs), a missile site in South Dakota is more important than centuries of ingenious coastal construction. The advent of the age of electronics has left a generation of useless defenses. When coupled with growing civilian demand for land and facilities, this has produced an unprecedented conversion and reuse of military property.

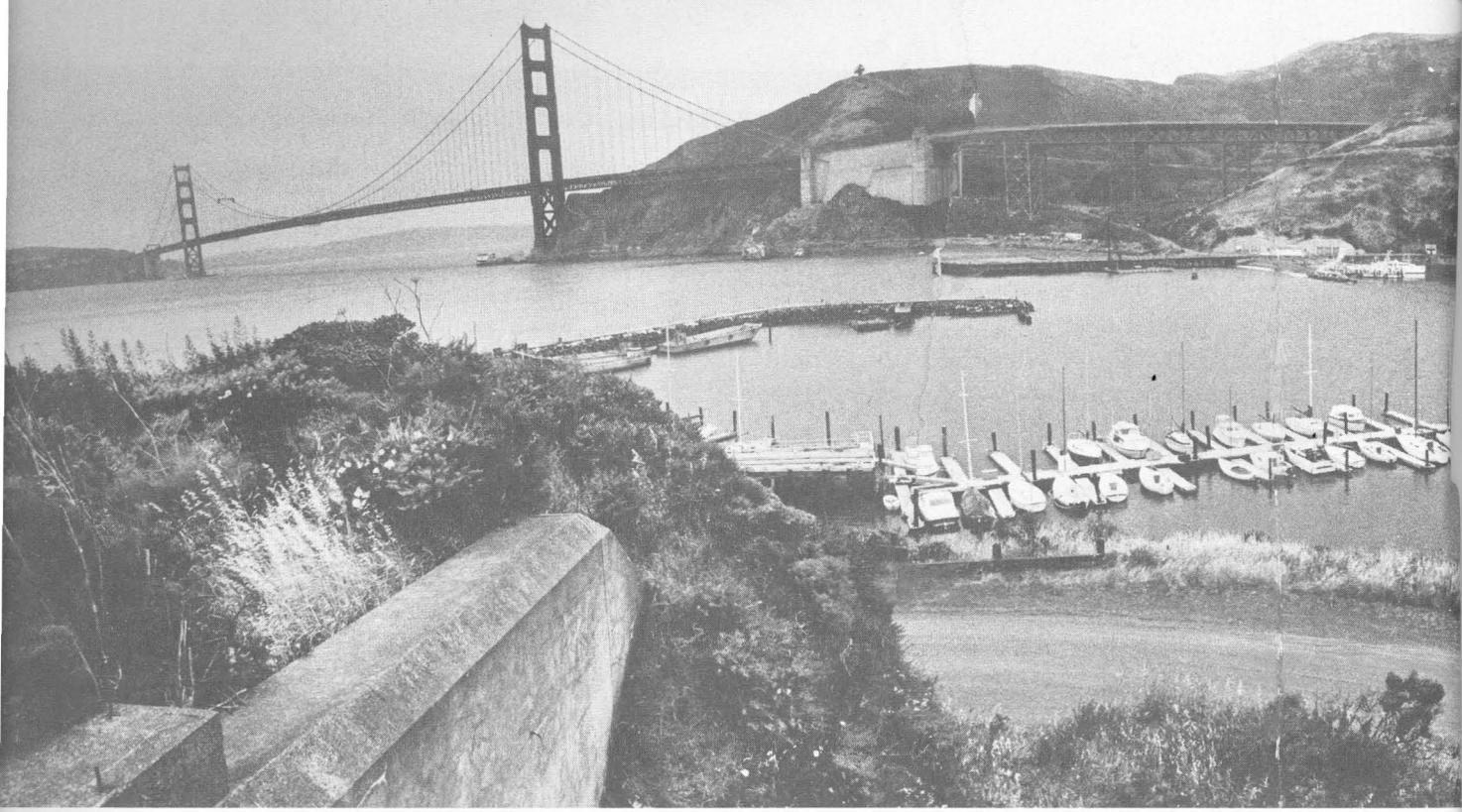
When a federal agency decides it no longer needs a property, the General Services Administration (GSA) is charged with

its disposal "for optimum use." What that means depends a great deal on administration policy. "Under this administration we have been working more towards selling properties for fair market value, as opposed to some years ago, when we were heavily into parks and recreation," a GSA spokesman said. GSA statistics show that the Reagan administration disposed of far more federal property than the Carter administration did in a comparable period, and sold 66 percent of it, as compared with 38 percent, rather than transferring it to other federal agencies, or conveying it at discount to state and local agencies or nonprofit entities for varied public uses. "Where a property is obviously developable, we will try to sell it," the spokesman said.

Congressmen also have great influence on the disposition of surplus land. In California, much abandoned coastal military acreage has gone to parks and other public uses, largely because of strong Congressional and citizen advocacy.

Nowhere in California is the effect of military land use and subsequent conversion more evident than in the San Francisco Bay area, where coastal fortifications once occupied some of the choicest lands. The GGNRA's first superintendent, William J. Whalen, recently observed that he knew of "no other place where excess military land has been in such prime locations." A continued military presence over 200 years has greatly changed the landscape here. Tons of crumbling concrete rubble, piles of masonry and mortar, rusting cast iron and steel, as well as harbors and tunnels, walls and trenches, roads and fences built for military purposes were later abandoned and melded into coastal development. In many cases the very town layout has been shaped by wartime use or military activity.

All existing and many converted military facilities in the area can be traced to World War II, when Liberty ships were built in Richmond, troops were shipped out through the Golden Gate, prisoners of war were held on Angel Island, and Hamilton Field was a hub of Air Force flights. Afterwards, the Nike missile defense system was installed in small bases scattered around the Bay hills, only to be replaced, in the '60s, by the ICBM system



**Fort Baker,
Horseshoe Cove,
1974.**

as the country's defensive line was expanded ever wider, leaving a tangle legacy in its wake.

In Richmond, World War II shipbuilding left a deep-water port and acres of filled baylands on which the city has built waterfront industry. In Sausalito, the floating houseboat village that is part of the local charm began with an abundance of castaway Navy plywood left from the war. In Berkeley, many Sunday strollers along the four-mile Nimitz Way in Tilden Park often do not realize they are walking an old access road to an abandoned Nike missile base. There are other Nike bases in the East Bay Regional Park District at Las Trampas and Coyote Hills parks, at Angel Island State Park, at Fort Funston and elsewhere in the GGNRA. A mock-up of a typical site is at Hill "88" on the Marin Headlands.

Visitors to San Francisco might be flying into Treasure Island airport rather than San Francisco International Airport if the Navy had not needed the 1939 World's Fair site for its World War II effort. Twelve thousand men a month trained there. After the war, the Navy kept the island and swapped it with the city for a piece of land on the peninsula.

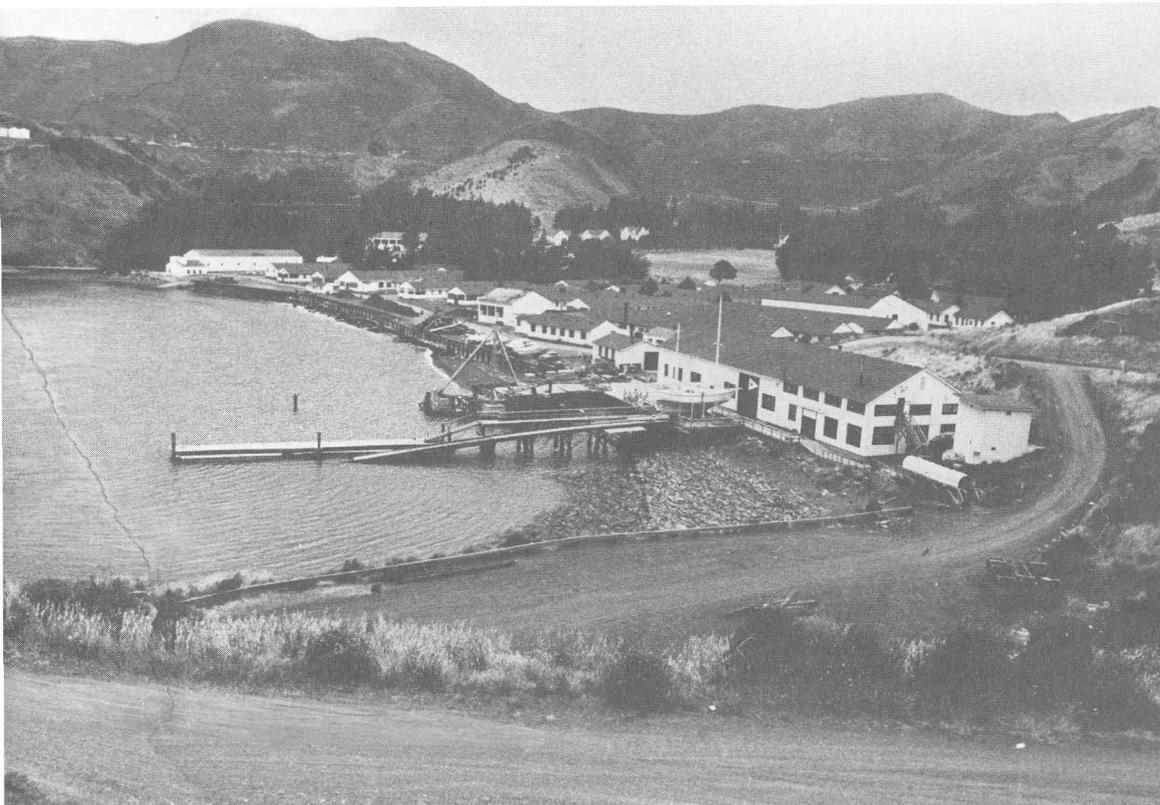
Local efforts to assimilate abandoned military property have been exceptionally innovative in the Bay area. Three major patterns of reuse can be seen. In the Golden

Gate National Recreation Area, especially at Fort Mason [see article by Kyle Heger] and in the Marin Headlands, a strong public/nonprofit partnership has proven highly successful. At Camp Reynolds on Angel Island, state stewardship has preserved an exceptional historic site. At Hamilton Air Force Base, attempts are underway to convert a military facility into a full-service community. The plans are promising but also demonstrate pitfalls of acquiring and developing surplus land.

Camp Reynolds, Angel Island

It's Opening Day on the Bay, and ferry riders from Tiburon to Angel Island State Park have been pelted with the traditional water balloons hurled from passing pleasure boats. Laughing, they disembark at Ayala Cove, as do passengers from launches, sailboats, and every conceivable other kind of craft. It's a busy day at the park, but the 740 acres seem to accept the crowds gracefully. Many visitors walk past the museum and the old quarantine stations, drawn around the western point of the island by occasional booming sounds.

The booms come from Civil War era Camp Reynolds, where visitors are helping to fire an old mountain howitzer down at the shore. The squat gun kicks back onto its wheels, and



SAN FRANCISCO CHRONICLE

smoke drifts from the massive storehouse up the sloping parade ground past the row of gabled buildings to the restored gothic residence, originally officers' quarters.

At this building Nancy Echols, a docent for the Angel Island Association, leads a tour that includes an adjacent bake house. The association is dedicated to interpreting Angel Island's natural and cultural heritage. Volunteers often dress in period costume. Today Echols proudly points out the natural history lab and dormitory area where children and adults can stay while learning about the island. Overnight visitors have included Sierra Club members, students, and other groups, including one that provides outdoor adventures for the disabled. Kayakers sometimes paddle over from Sausalito and stay.

Camp Reynolds was established in 1863, along with several nearby gun batteries, for coastal defense. It was used to billet soldiers in the Indian Wars of the western interior, and 200 soldiers were quartered here in 1876. The "village" included a church, bakery, laundry, smithy, barber, trading store, military band, and even a photographer. It remained active during the Spanish-American War and in the 1890s was used as a control center for underwater mines strung in the adjacent Racoon Straits.

Within a half mile of Camp Reynolds is a Nike missile base, closed in 1962. Together,

the two facilities bracket 100 years of military presence. The island has had many other military uses, from navigation safety to prisoner of war camp. It was a major embarkation and discharge point for thousands of Pacific theater troops in World War II. Many buildings from the period still stand today at Fort McDowell. It was also, from 1910 to 1940, the western counterpart of New York's Ellis Island. Thousands of immigrants, mostly from China, were interned here for weary months, waiting for permission to enter the land known to them as Gold Mountain.

After Angel Island was declared surplus in 1946, it passed from the War Assets Administration to the Bureau of Land Management to the National Park Service, in stages. Many local groups, including the Angel Island Foundation, Marin Conservation League, and the Pacific Maritime Academy, strove to secure the land for a park. In 1954, a 37-acre portion was granted to the California State Park Commission. At the same time, the Army returned to build the Nike base. After its decommissioning in 1962, the rest of the island was turned over to the state, except seven acres at Point Blunt, which were reserved for the Coast Guard.

So far, only a few buildings at Camp Reynolds have been restored, funds permitting no more. But the rest are being preserved for a future day when an even greater variety of



RICHARD FREAR, GGNRA

Fort Mason, hub of the nation's largest urban park.

people can actively enjoy this exceptionally valuable natural and historic site, as well as the many other features of Angel Island.

Marin Headlands

The headlands towering above the northern shore of the Golden Gate offer spectacular views of San Francisco and the Pacific Ocean. Less noticeable are scores of coastal defense structures, barracks, and support buildings that honeycomb the hills. Three generations of coastal defense are represented here, in what is now part of the National Park Services Golden Gate National Recreation Area (GGNRA). Fort Baker and its battery Gavallo date from the Civil War; batteries Spencer, Kirby, and Townsley from the period between 1900 and World War II; and the Nike missile site on Hill "88" from the first era of missiles. Many park visitors simply stumble onto these and other ruins while hiking the popular trails, but staff also run 40 interpretive programs a month explaining the park's resources and features.

Beyond the scenery and historic structures, the Marin Headlands also offer many opportunities through nonprofit organizations that use old military buildings for activities that include rescuing seals, staging performance art, and varied seminars. At Fort Barry, the Marin Headlands Center for the Arts, headquartered in barracks dating from the 1800s, offers environmental education and outdoor experiences to groups from around the Bay area. An American

Youth Hostel welcomes travelers in a secluded setting overlooking Rodeo Valley, and the Pacific Energy and Resource Center conducts research on alternative energy sources at Fort Cronkhite.

Near Fort Cronkhite, at the California Marine Mammal Center, volunteers rescue and rehabilitate seals and other pinnepeds, and also offer educational programs. On the other side of Rodeo Valley on Point Bonita is the YMCA Outdoor and Conference Center, where large groups can gather for meetings or overnight get-togethers.

Permits for such activities are available for a nominal charge and are subject to review. Each permitted group is responsible for the upkeep of the building it occupies. Historic exteriors are maintained, but interiors may be modified. Thus, available building space is used, buildings are maintained, and an active presence is established within the large, thinly staffed park area.

The mix of a public park component and public nonprofit enterprises at the Marin Headlands is also found elsewhere in the Golden Gate National Recreation Area, most notably in Fort Mason.

Hamilton Air Force Base

Blocks of old Spanish-style buildings stand empty along palm-lined streets at Hamilton Field, and rows of huge hangars along the runways are unused. From the rounded hills named "Ammo," "Reservoir," and "WAF," you can look out on green

marshlands that stretch east to San Pablo Bay. An occasional aircraft may land—a helicopter from the Coast Guard's Pacific Strike Team unit or a plane from Sixth Army headquarters at San Francisco's Presidio, but the rest of the airfield has been little used since the 1,600-acre Hamilton Air Force Base was declared inactive 15 years ago.

If private development plans for 402 acres of the property are realized, the streets of the abandoned air base will again be filled with activity. Over 3,000 units of new housing clustered around 2 million square feet of medical and research facilities would be built here, in one of the most ambitious new town projects in the state. Recent history of the site, however, shows that conversion may be a slow and difficult process, especially when local consensus on desired use is absent.

Built in 1933 as a small Army Air Force base, Hamilton has served every branch of the service but the Marines. Most recently it was a tactical Air Force base, part of the Pacific Basin Warning System, another iteration of the widening post-war defensive net of missiles and interceptor aircraft. ICBMs rendered this use obsolete, and 402 acres were declared surplus. The Defense Department retained the major portion of the land, including some hangars, a runway, and housing.

The GSA found no takers for the abandoned land among state or local agencies. The Bay Conservation and Development Commission (BCDC) had proposed in its Bay plan that the airfield be converted to a civilian auxiliary aviation field, but in 1979 voters of the city of Novato turned it down, along with a conceptual plan for an innovative self-sustaining community with 1,900 dwelling units; 770,000 square feet of light industrial, housing, and commercial space; 42 acres for park and recreation; and 50 acres of agriculture and energy production. Special features included solar heating and power, aquaculture, and ecologically sound waste treatment. In 1985, the 402 acres were bought by Berg-Revoir, Inc., a private development corporation, for \$45 million, with a 10 percent down payment. The company retained Eldon Beck Associates, landscape architects, to create a master plan. The plan proposes medical facilities, research and warehousing, and multi-story housing served by local

commerce.

There are some hurdles yet to pass. The developer has not yet assumed title to the property, awaiting the cleanup by the Defense Department of some oil and gas spots and a garbage dump.

In addition, during environmental impact hearings, objections were raised to traffic that the development would generate, and to an alleged inadequate supply of new housing for the workers in development-generated jobs. A new master plan was drawn in September 1987, and a new round of environmental impact review hearings is scheduled by the Novato city planning commission. If all goes smoothly, the developers will seek certification by the Novato City Council late this year and may start construction in 1989.

Whatever the outcome, the Hamilton Field story suggests several important issues generally involved in the conversion of military lands. First, large complicated projects take time and bureaucracies add years to completion schedules. Second, military lands often come with severe site constraints—often more severe than those at Hamilton Field. Everything from overlooked toxic waste to dangerous underground structures can be found at such facilities. Third, retrofitting existing structures to fit new needs will usually require more effort than to build anew.

It's Worth the Struggle

Former military lands have provided thousands of acres of public park and scenic open space to Californians. Abandoned military properties have also been put to other uses—occasionally, with less than total success. The Arcata-Eureka airport is infamous for being frequently fogged in. And no wonder: fog was the reason the site was selected when the field was built for military training flights. That case, however, is exceptional. Usually, though the land transfer process is long and the adaptation of facilities complex, the rewards of conversion are great. Adaptation of military land can even be thought of as the wisest of all land uses—the return of land to full productivity or natural beauty, to be enjoyed in peace. □

Tom McKeag is a planner at the Planning Collaborative in San Francisco.

A Fortress Transformed

AFTER CONGRESS created the Golden Gate National Recreation Area (GGNRA) in 1975 on 114 square miles of relinquished military land, the National Park Service had to decide what to do with numerous empty buildings. Most problematic were three covered piers and four three-story warehouses on 13 paved acres of Fort Mason, on San Francisco's northern waterfront.

Some argued for tearing down the 300,000 square feet of covered space, breaking up the asphalt, and planting trees and grass, thus extending the city's front yard, the Marina Green. But a more daring idea was put forth by the GGNRA's first superintendent, William J. Whalen.

As he read the intent of Congress, "empty old structures should be used for creative, educational, and recreational activities." But because he knew the U.S. Park Service did not have funds for remodeling, he proposed "to create nonprofit entities

bring about," Whalen said. The old military buildings now house 50 nonprofit organizations and offer space for activities by some 450 others.

The Center is completely self-supporting, and has become a model for other cities.

"This is a place where people create things, where they can make things happen," said the Center's executive director, Marc Kasky. "It's not just a place for spectators."

On a typical month, visitors could watch Eugene O'Neill's *Moon for the Misbegotten* at the Magic Theater, browse at the Friends of the San Francisco Public Library book sale, attend a desktop publishing conference, visit the Mexican Museum, take the children to an art class, see "West Coast Weekend," the musical-variety live radio show, and still have only skimmed the surface of what's available.

Permanent tenants occupy the old yellow stucco buildings A through D

Center is the best deal in town. It's a known, highly attractive location, and it's secure: the landlord won't sell the building and evict you. Rents are less than half what they would be commercially, and there is free parking. Proximity to other nonprofits is beneficial. Someone might not go out of his way to visit the Craft and Folk Art Museum, for instance, but may stop in on the way home from a Western Public Radio meeting, or from lunch at Greens, the trendy gourmet vegetarian restaurant run by the San Francisco Zen Center in Building A.

As a local cultural vortex, Fort Mason is unique. But it is becoming a model for others. Among recent visitors were delegations from Chicago, looking for new beneficial uses for an old Navy pier; from San Antonio, Texas, exploring possibilities for its world's fair site; from Tallahassee, Florida; Lowell, Massachusetts; and even from Sydney, Australia, where a harbor military base could be recycled.

The success of Fort Mason can be traced, in large part, to citizen participation in planning, and to the generous attitude of Whalen. "A light touch was needed," he recalled recently. "My philosophy was: help them get started and then get out of the way. Don't supervise, bureaucratize, or do the other things government tends to do. Let them grow and develop creatively." Whalen is now a land use consultant, based in San Francisco.

The story of Greens illustrates the problem-solving that shaped the place. "We wanted a restaurant, preferably run by a nonprofit group," said one of the original citizen planners. "No one would come in because the windows were so high you could not look out. But then the Zen Center people looked, and they decided to raise the floor." The result: wide views of the bay, boats, and the Golden Gate Bridge from almost



KRISTI FARNHAM

William J. Whalen

that would be willing to raise the funds, and to turn the buildings over to them."

Thus was launched the Fort Mason Center, a unique home for San Francisco's vibrant cultural diversity. At the Park Service's suggestion, local citizens formed the Fort Mason Foundation, which established the Center and became the umbrella for "activities that the Park Service, with its meager budget, could in no way

(E is the Park Service's, for storage). The covered piers are the scene of special events ranging from small press and trade fairs to Cajun music festivals to ceremonies by visiting Tibetan lamas.

In ten years, no more than three tenants have left, Kasky said. There is a waiting list of more than 100 for permanent quarters.

This is hardly surprising. For a nonprofit organization, Fort Mason

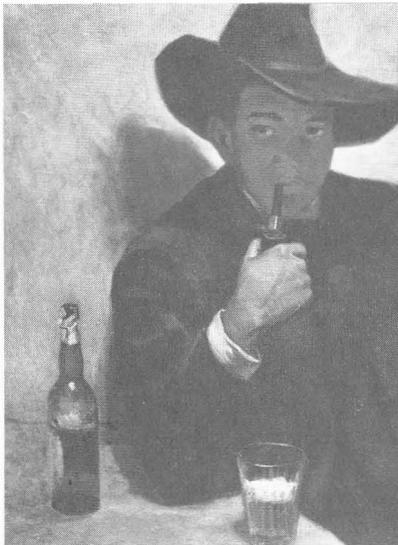
every table.

The Center is separated from the upper 50 acres of the fort by a 90-foot bluff. Above it, some white-frame buildings—some of them dating back to the Civil War—are still used by the Army. New tenants include GGNRA headquarters, the San Francisco International Youth Hostel, the San Francisco Civilian Conservation Corps, and the Fort Mason Community Garden.

Nationally recognized for its design, the 1½ acre garden has 115 individual plots, a greenhouse, a flower and herb garden, and an orchard. Members pay \$35 a year for the use of a 5- by 20-foot plot, water, seed, and tools. They can also help themselves to apples, almonds, plums, lemons, limes, and figs from the orchard, and share the herbs. Eighty people are on the waiting list.

Fort Mason began its 212 years of military history in 1776 as Puntas Medanos (Point Dune) under Spain, then became Bateria San Jose from 1797 to 1832, when Mexico took over and renamed it Punta Medanos de Arena (Point Sand Dune). After becoming U.S. territory in 1846, the site was first Point San Jose and then Black Point in the Gold Rush, when squatters camped under blufftop bay laurel and oak. In 1882 it was officially renamed after Col. Richard Barnes Mason, military governor of California, 1847-49. Fort Mason was headquarters of the Sixth Army Transport Unit and port of embarkation for 1.5 million troops during World War II and the Korean War.

Conversion to an active community center required attention to balance. Though the Fort Mason Foundation has raised \$5 million for renovations and plans to raise \$2.5 million more by 1991, it does not plan dramatic expansion. "We try to make this a positive thing for the neighborhood," Kasky said. "There's a line between being a resource and being a nuisance." Last year, 1.7 million



COURTESY MEXICAN MUSEUM

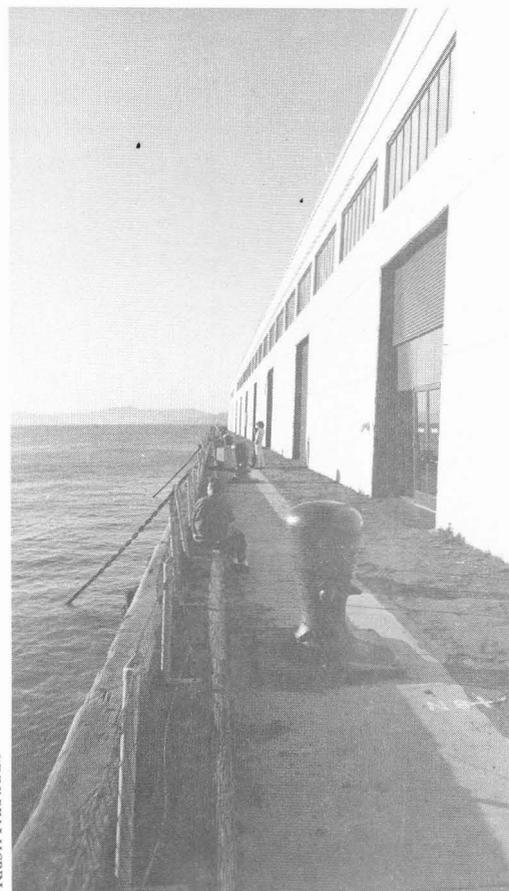
Diego Rivera self-portrait, 1907, recently at Mexican Museum.

people trooped through, often exceeding parking capacity. At major events, shuttle bus service is provided to parking at Crissy Field, a former military airfield 1½ miles away.

Whalen recalled that when he first proposed that citizens manage the facility, cautious voices had warned that tenant groups would become "entrenched;" he had replied that he hoped they would. In 1984, the Foundation renewed its eight-year lease with the Park Service—this time for 20 years.

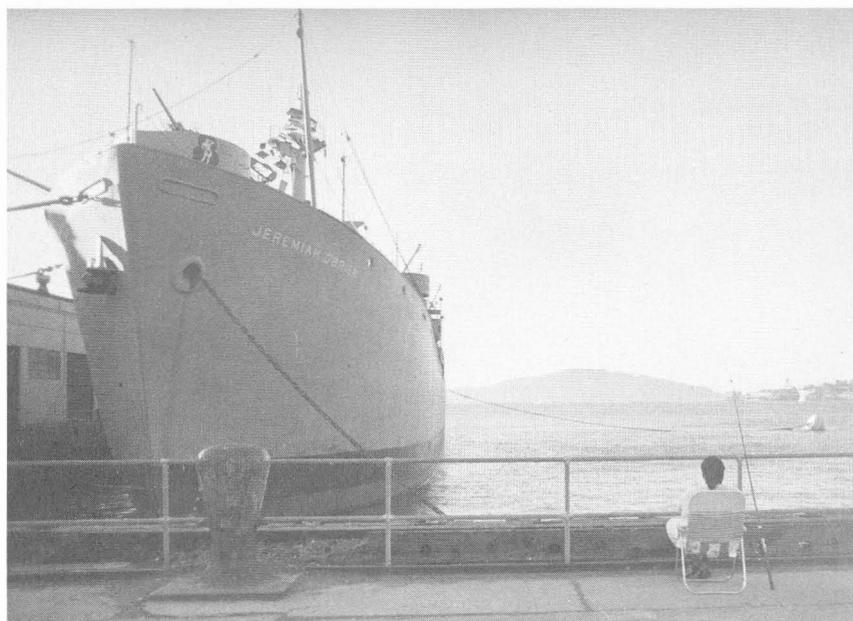
—Kyle Heger

Kyle Heger is an intern with Waterfront Age.



KRISTI FARNHAM

Covered pier at Fort Mason.



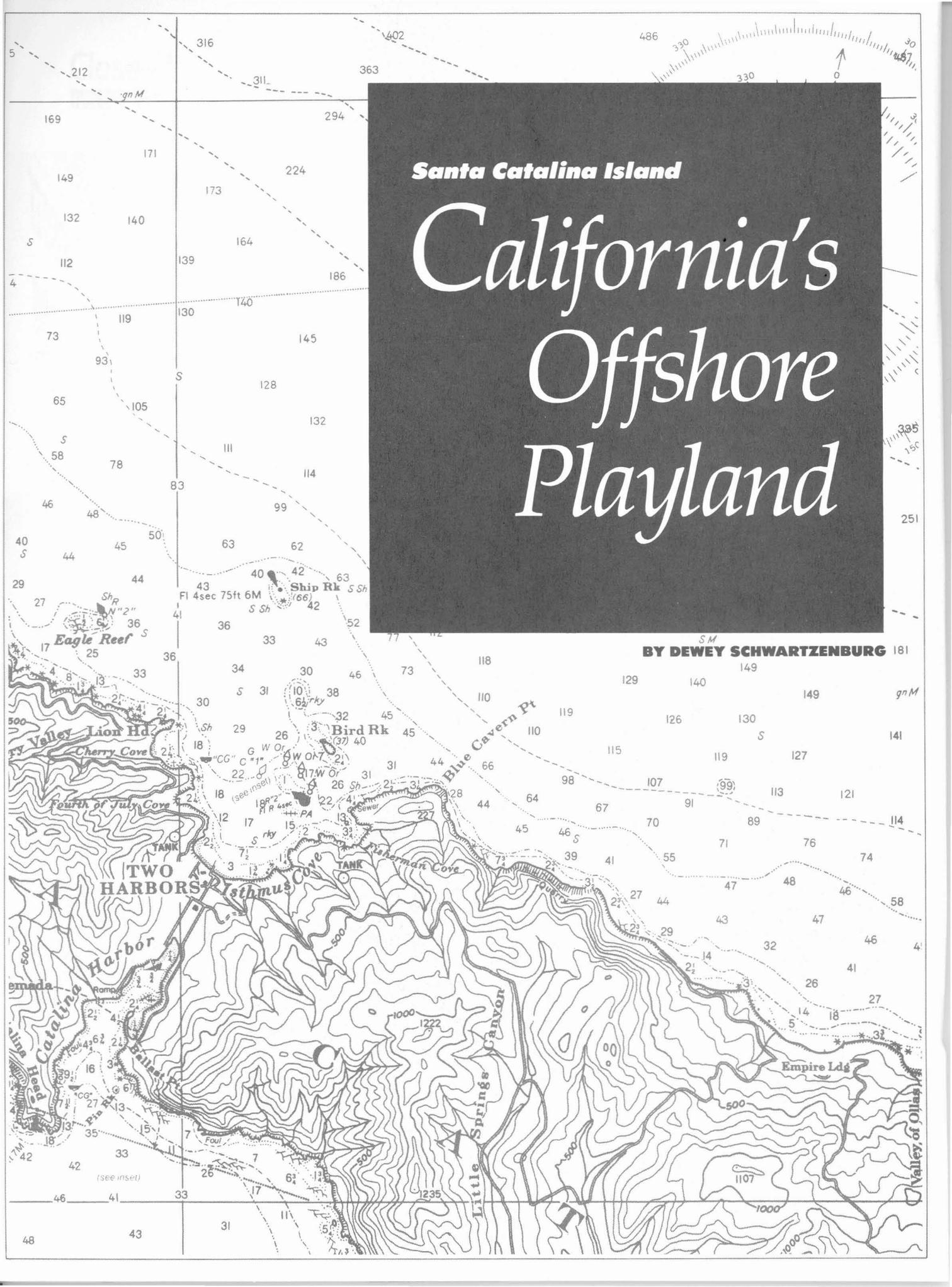
KRISTI FARNHAM

The only Liberty ship still afloat, the S.S. Jeremiah O'Brien, at Fort Mason.

Santa Catalina Island

California's Offshore Playland

BY DEWEY SCHWARTZENBURG



FOR MANY OF US, to travel to an island is somehow truly "to get away from it all," to leave behind the frenetic pace of the mainland and find peace and beauty. Surrounded by the sea, you are never far from nature and its power.

Of course, the island's attraction is all the greater if it offers certain amenities: quaint inns and hotels, restaurants and taverns, things to do and places to go.

Of the several islands off the California coast, only one is truly open to visitors, offering a wide range of recreational activities. Santa Catalina, one of the six Channel Islands, is the only one with both a community of residents and a town—with the romantic name of Avalon—designed for visitors.

Indeed, Avalon once bustled with tourism. Through the late 1920s and '30s, huge luxury cruisers carried hordes across the 26-mile channel from Long Beach to the picturesque harbor of Avalon. Families frolicked on the beaches, toured the wild interior, gazed at sealife on night trips in glass-bottomed boats, and dined and danced to popular bands.

For more than two decades, however, Avalon had been in decline. By the 1960s, it was drawing mainly day-trippers who strolled along the faded waterfront, ate an expensive hamburger and coke, dipped in the ocean, perhaps, shopped for cheap souvenirs, and wondered what else to do before the ferry left for home.

Now, however, an ambitious and imaginative revitalization is underway. With the assistance of the State Coastal Conservancy, the islanders have embarked on a program that will rescue Avalon's glamorous history from oblivion while opening the way for a bright future.

The Island

Santa Catalina Island (commonly called "Catalina") rises high above the ocean as a ridge of rugged mountainous terrain 21 miles long and nearly eight miles wide at its great-

DEWEY SCHWARTZENBURG



Casino and promenade.

est extent—although at the Isthmus, one can easily walk the one-third of a mile from one side of the island to the other on fairly level ground. Throughout the 76-square-mile interior, imposing peaks tower above tangled valleys and rolling hills, mostly dominated by coastal sage scrub, grasslands, a unique

southern California chaparral, and woodlands where the soil is rich and moist. The Catalina ironwood tree subspecies is found nowhere else in the world, and is a living relic of ancient mainland forests.

Feral goats and boar roam far and wide and are commonly seen, as are small native mammals, including the Catalina subspecies of the little Channel Island fox and several other unique subspecies. A herd of 14 buffalo brought to the island in 1924 for the filming of a movie has increased to about 500 head today and now ranges throughout the interior.

There are fewer bird species here than on

**THE PROSPERITY OF THE '20s
REACHED ITS APEX WITH THE
OPENING OF THE CATALINA
CASINO IN AVALON—JUST
BEFORE THE STOCK MARKET
CRASH.**

the mainland, but they include some subspecies found nowhere else, such as the Catalina quail. A small population of the endangered peregrine falcon and bald eagle, both once native to the island but wiped out in the

1950s, has been reestablished and appears to be flourishing. Other animals include a native rattlesnake, a worry for some hikers and campers, but an important predator essential to the island's fragile ecosystem.

Marine life is abundant in the remarkably diverse habitats of Catalina's waters. Some sealife, such as abalones and lobsters, are economically important. Commercial and sport fishermen ply the deeper offshore waters for marlin and tuna. Snorkelers and scuba divers appreciate the richness and diversity of local marine life.

Man Comes to Catalina

Evidence of human presence goes back 5,000 years at Little Harbor, today the site of a Los Angeles County campground where you can pitch your tent under a palm tree next to the sandy beach of a beautiful cove. More recent (A.D. 1000 to the Spanish Con-

quest) inhabitants called themselves Pimugnans, and their island Pimugna—or simply Pima. The Spanish referred to them as the *Gabrielino*.

Juan Rodrigues Cabrillo "discovered" and claimed the island for Spain on October 7, 1542, under the name of San Salvador. In 1602, Sebastian Vizcaino, ignorant of Cabrillo's discovery, "discovered" it yet again and named it Santa Catalina. Over the next 200 years, diseases and other disruptions brought by Europeans wiped out the native population, and throughout most of the 19th century, only a few squatters lived on the island and only traders and smugglers anchored offshore.

The modern history of Catalina began in 1846, when the last Mexican governor of California, Pio Pico, sold the island to Thomas Robbins of Santa Barbara for a horse and saddle, to aid his escape from American troops. Robbins—together with the now long-established squatters on the island—brought goats, sheep, cattle, and other livestock from the mainland and introduced ranching.

It was in 1887, when George Shatto purchased Catalina, that the tourist industry first appeared. He rented campsites in Avalon Bay to vacationers enamoured of the bay's crystal-clear water, excellent fishing, and scenic vistas. But this enterprise failed to make a profit. So in 1892, Shatto sold the island to the Banning brothers, who founded the Santa Catalina Island Company.

The Avalon name was an inspiration of Etta Whitney, George Shatto's sister-in-law, after Alfred, Lord Tennyson's "... island valley of Avalon, where falls not hail or rain, or any snow, nor ever wind blows loudly ... " In the *Idylls of the King*, Avalon "... lies deep-meadowed, happy, fair with orchard lawns and bowery hallows crown'd with summer seas. ... "

Catalina's original Avalon was the tent city of the 1890s, set up by purchasers of lots. The settlement was incorporated in 1913, but destroyed two years later by fire.

In 1919 William Wrigley Jr., the chewing-



gum magnate from Chicago, acquired a controlling interest in the Island Company without ever having seen Avalon, and shortly thereafter became the sole owner. He fell in love with the place and launched its golden age.

"The Island Valley of Avalon ... "

The boom began when Wrigley and his son Philip K. arrived. They improved the water supply, remodeled the fabulous Hotel St. Catherine (built by the Bannings after the fire), and constructed more hotels and a thousand cottages for visitors. They invested in large luxury steamships to bring pleasure-seekers to their island and mounted an ambitious advertising campaign.

William Wrigley also brought major league baseball to Catalina. As the owner of the Chicago Cubs, he built spring training facilities in Avalon Canyon behind the town and brought the team over every year from 1921 to 1951. This proved to be good advertising, too, because sportswriters who accompanied the team enjoyed the island and told their readers across the country about it. Huge numbers of tourists flocked to Catalina in the 1920s.

Many permanent homes and businesses

Tile benches along serpentine walk.



Setting paving stones, circa 1936.

were built during this prosperous decade. For themselves, William and Ada Wrigley built a magnificent 22-room mansion on a hill overlooking Avalon and its bay, where they entertained guests. Other mainland worthies also built homes on the island, including the famed novelist of the West, Zane Gray, and the popular movie star cowboy, Tom Mix.

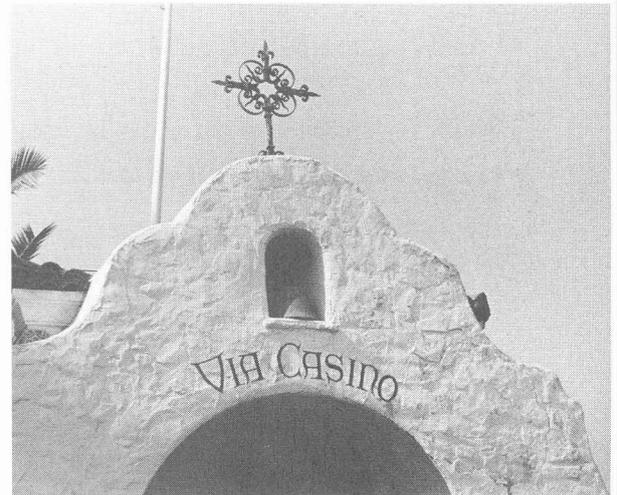
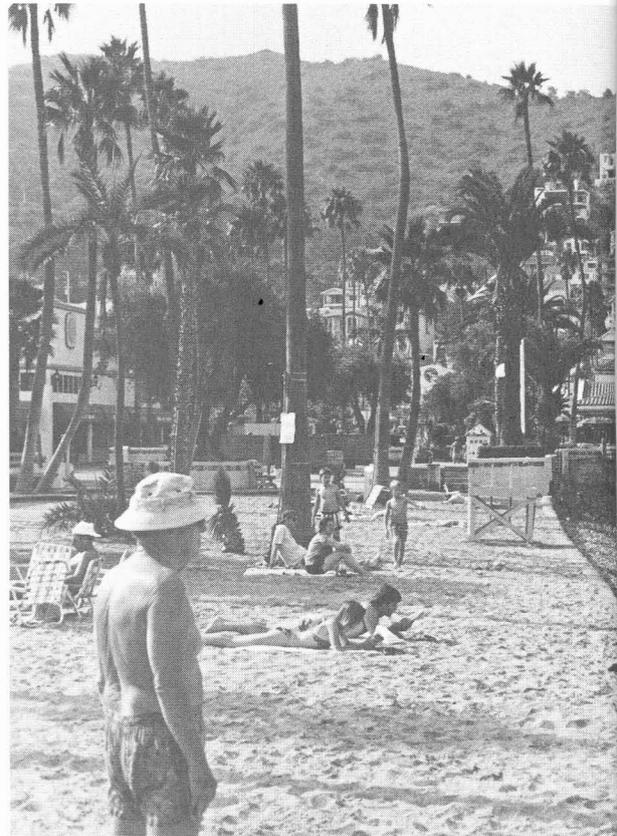
The Strand Theater opened, presenting a full schedule of silent movies, and a 74-foot glass-bottomed boat, equipped with underwater lights for nighttime tours, offered views of the rich marine life. In 1925, Ada

**A HERD OF 14 BUFFALO
BROUGHT TO THE ISLAND IN
1924 FOR THE FILMING OF A
MOVIE HAS INCREASED TO
ABOUT 500 HEAD AND NOW
RANGES THROUGHOUT THE
INTERIOR.**

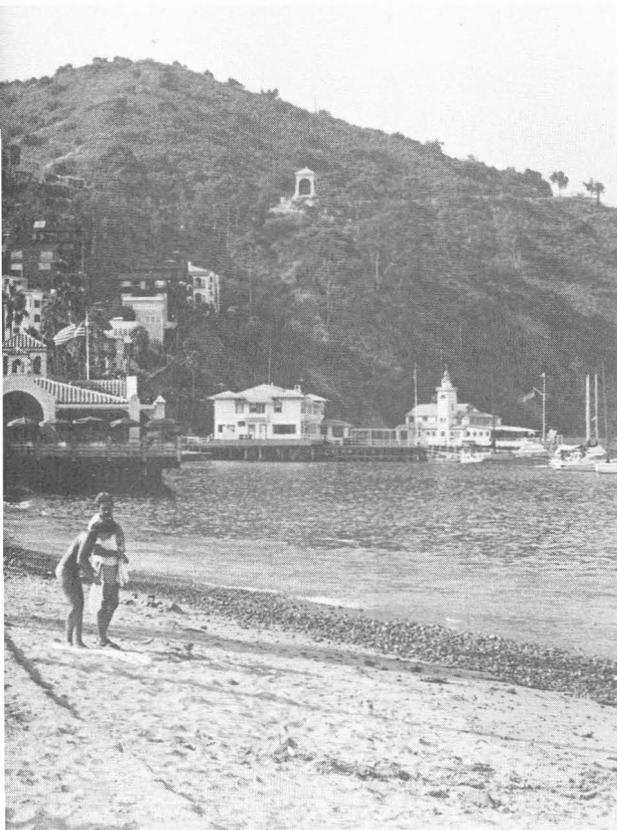
Wrigley built the Chimes Tower on a bluff overlooking the town, to toll the time and provide evening Chimes Concerts on weekends. And at Sugarloaf Point, at the north end of the harbor, an octagonal entertainment center was constructed to provide for dancing, roller skating, and romantic moonlight walks. Known as the Sugarloaf Casino, neither this building nor its successor, the great Catalina Casino, had anything to do with gambling, the term "casino" being used in its more general European sense of "entertainment center."

Recognizing the need to provide local industry to supplement the income from tourism, the Wrigleys also founded a ceramic and tile factory, a rock quarry, and a furniture factory around the corner from Avalon, at Pebble Beach, and started a poultry farm in Avalon Canyon. The most distinctive products to come from these endeavors were the Catalina ceramic tiles, fired in unique colors and designs.

The prosperity of the '20s reached its apex with the opening of the Catalina Casino in Avalon—just before the stock market crash and the ensuing economic crisis plunged the nation into the Great Depression. Conceived by William Wrigley in 1928 as a magnificent



Gateway to casino walkway.



Downtown beach in Avalon.

edifice to dominate Avalon and greet visitors as they approached the harbor, the new Casino was constructed in less than 18 months. It was built on the site of the old Sugarloaf Casino, which was moved out to Avalon Canyon and converted into an aviary, the Catalina Bird Park.

The new casino was monumental, with a 1,200-seat theater (with organ), a round Grand Ballroom, and a wide terrace offering views of the town and harbor. Decorated with elaborate murals designed by John Gabriel Beckman and executed with the distinctive Catalina ceramic tiles, the Catalina Casino stands today as a principal tourist attraction and symbol of both town and island.

The casino opened with great celebration on Memorial Day weekend, 1929, five months before the stock market crash brought an abrupt end to the "Roaring Twenties." The Great Depression of the 1930s affected Avalon as it did the rest of the country, and tourism declined. But those who did have money to spend had all the more reason to wish to escape to an island. So tourism survived, and the new "Big Band" sound of the '30s rang out across Avalon Bay from the new casino.

In fact, the 1930s saw the mounting of an ambitious—and thoroughly modern—restoration, renovation, and development project. Philip K. Wrigley explained his "Early California" plan in a speech, broadcast by the local radio station KFWO (and quoted from *The Catalina Islander*, March 8, 1934). Philip Wrigley articulated enlightened and far-sighted principles of redevelopment and restoration which have as much validity today as they did then:

... The most interesting part of Early California, to me at least, was its people; their spirit, and the atmosphere with which they surrounded themselves. They had many things in their lives which we have completely lost today. ...

There will be architectural changes, but they will be gradual. We do not want to lose the atmosphere that the Island has built itself, or destroy



PHOTOS BY DEWEY SCHWARTZENBURG



the individuality which it has always shown. If we were to tear down the present structures and start over again, Avalon would probably look like just what it would be—a model town built by one man. . . .

We want to keep the best, not only in the City of Avalon, but in the modern conveniences that civilization has developed, and we also want to take from the past the things that are best, not only the archi-

itecture, but in the method of living; the friendliness, the spirit and the utilization of leisure time, putting this in a natural setting. Nature did much for Santa Catalina Island and what Nature gave us is the Island's greatest charm; but man always scars when he builds, and one of our first moves is going to be to eliminate these scars by giving Nature a helping hand in the way of planting. . . .

To these principles—despite his disavowal of the “model town built by one man”—Wrigley added a unique vision of architectural harmony which gave a distinctive air to the resultant constructions. The magnificent Serpentine Walk with its inlaid tiles, fountains, and numerous benches has done more than anything else to make the visitor to Avalon feel that he or she is truly in a resort—a refuge from the workaday world. The canopied and carefully landscaped walkway, with its inviting gateway, is a masterpiece, stretching around the northern expanse of the bay below the cliffs and out to the casino. Wrigley and his team produced a unified whole, incorporating both existing buildings and new constructions. It is both distinctive and inviting, magnificent and comforting.

But alas, time passes, and visions fade.



Pleasure seekers arrive on large ships in Avalon's glory days.

World War II came and went, and the Big Band era simply went—and with it much of the night life disappeared. Lights went out along the waterfront promenades. The long trip to and from the island lost much of its romance, so the large luxury liners sailed with deserted decks and were soon retired. The tile and ceramics plant folded, and the Island Company, beset by financial problems, seemed more interested in profits than preservation.

Hemmed in by both geographical and legal boundaries, Avalon could only watch as the Los Angeles basin experienced explosive (and all too often destructive) growth and expansion through the 1950s and '60s. Gradually the town fell into disrepair—tiles were broken and could not be replaced, plantings died and there was no money for new ones, and the munificence of the Wrigley family faded to a memory. Tourists continued to come, but found high prices and a slightly seedy, run-down waterfront town.

The turnaround began in 1972, when a private nonprofit membership foundation, the Santa Catalina Island Conservancy, was formed to encourage appreciation of the island through management, education, conservation, and research programs. In 1975 the Santa Catalina Island Company granted title to 86 percent of the island to the Conservancy. (Of the remainder, 13 percent is owned by the Island Company, the University of Southern California, and Southern California Edison, with less than 1 percent in individual private ownership.)

Small yacht enthusiasts began to visit the island in increasing numbers, and three county campgrounds were opened—one in the interior, one at the spectacularly beautiful Little Harbor with its twin coves, and one overlooking the quaint, tiny settlement of Two Harbors on the Isthmus.

Tourism has increased, but Catalina lacks local resources to respond to new possibilities. The waterfront needs much improvement, but the town of Avalon, with a small

year-round population of about 2,300, simply does not have the fiscal resources to mount a major restoration and renovation project. The Island Company, now divested of responsibility for most of the island, has its hands full seeking to make its remaining operations profitable. The Island Conservancy, a nonprofit organization, must devote all its limited resources to its own programs of management and preservation of 86 percent of the island.

But local inhabitants had a vision of a revitalized Avalon, "happy, fair with orchard lawns and bowery hallows crown'd with summer seas," as Tennyson described it and the Wrigleys visualized it. They invited the State Coastal Conservancy to assist in its realization. The Conservancy responded with an initial grant of \$50,000 for the preparation of a restoration plan for the Avalon waterfront. [See accompanying article.]

The economic base of Avalon, more than ever, is tourism, and tourism is based on the waterfront. When the waterfront is restored and revived, tourism will once again thrive. As the gateway to the island of Catalina, now more accessible than ever under the management of the Catalina Island Conservancy, the revitalized port of Avalon allows more access to the interior and the rest of the island. More people will have an opportunity to appreciate the unique ecology and natural beauty. Santa Catalina's future is bright. □

Dewey Schwartzburg is the managing editor of California Waterfront Age.

SOMETHING OLD, SOMETHING NEW

Rebuilding Avalon's Waterfront

The original request to the Coastal Conservancy from the city of Avalon was for a grant to build an urgently needed pier restroom and shower facility. The Conservancy agreed, but suggested a comprehensive waterfront plan, since most of the Avalon waterfront infrastructure and recreation facilities were outmoded and deteriorating from overuse. An initial grant of \$50,000 was made for the preparation of a restoration plan.

Realizing this small town had little experience in comprehensive planning, Conservancy staff recommended a unique planning process employing community participation workshops open to all. Education then became basic to the process.

In this process, as many people as possible are involved in consensus-building workshops in the planning, design, and implementation of environmental change to a specific area in a community. In this kind of planning and design, citizens establish common goals and priorities first. Consultants listen and then advise. Together, local residents and outside professional experts can develop a goal-oriented program that is economically and politically feasible as well as relevant to the local community and its needs.

The Conservancy first organized a community workshop that included a distinguished group of California design professionals who contributed their time to meet with the Avalon residents and come up with an initial inspiring list of design recommendations. The design team included a variety of disciplines: Moore Ruble Yudell, architects; Sussman Prejza, graphic designers; Campbell and Campbell,

landscape architects; and Tina Beebe, architectural color consultant.

This first workshop, held in April 1987, produced a broad array of improvement ideas as the basis for a draft Urban Waterfront Restoration Plan. Subsequently, the consultant team hired by the city with the concurrence of the community participants studied the Avalon waterfront to determine the feasibility of the potential design solutions generated by workshop participants. Meetings were held both on and off site with representatives from the city of Avalon, the state Department of Boating and Waterways, and the State Coastal Conservancy to analyze the present condition, capacity, and lifetime of Avalon's utilities and shoreline stabilization infrastructure. City staff and the consultant team also met to analyze pedestrian and vehicular

traffic conflicts and their solutions, and potential impacts and implementation costs.

The results of these studies were presented to the second Waterfront Design Workshop, held in November 1987. Participants reviewed the findings and recommendations of Workshop I and the studies and design proposals of the consultant team. Participant teams then worked to refine and set priorities for the design guidelines and improvements that would shape Avalon's shoreline in the future. As in the first workshop, all participants stressed that both the guidelines and any improvements or new development must reflect "the qualities that make Avalon and Santa Catalina Island special."

Indeed, the workshop plan goes far beyond mere restoration, involving bold ventures which, when implemented, will bring about a



Waterfront restoration plan.

COURTESY CAMPBELL AND CAMPBELL

revitalized waterfront offering a variety of new amenities to both visitors and residents. Here, in part, is the new vision of Avalon, as described by Regula Campbell.

Avalon is still the same special place. Gleaming white buildings still step down the canyon slopes and sweep along the arc of the bay. Subtle improvements have taken place. . . . Tall, slender Mexican Fan Palms line a new promenade. Little parks tucked into the hillside offer spots for picnics. A new, expanded stair down to the ocean allows snorkelers more convenient and safer access to the water. At the end of the promenade, an observation point exhibits tempting views of the Underwater Preserve. A tile mosaic identifies the incredible range of flora and fauna that live right off-shore.

. . . Out at Casino Point, there is a new park. . . . broad promenades wrap around the point.

As a returning visitor sits on a new tiled bench to look back at the town, she muses that all the wonderful things she remembers about the resort are still here: the over-all small scale sized for pedestrians, not vehicles; the wealth of public amenities; the use of Catalina tile, rock, and plants. . . . She is delighted that there are new places now for her to discover.

Restoration is crucial to the waterfront restoration plan, but so is opening new areas to relieve crowding along the waterfront. Stairs will rise to Buena Vista Park overlooking the town, and Lovers Cove will feature a lighted promenade again for nighttime use. Fishing, sailing, and snorkeling have always been popular in Catalina. Now waterfront improvements and signs will lead visitors inland to other attractions such as historic walking tours through the town and



COURTESY CAMPBELL AND CAMPBELL

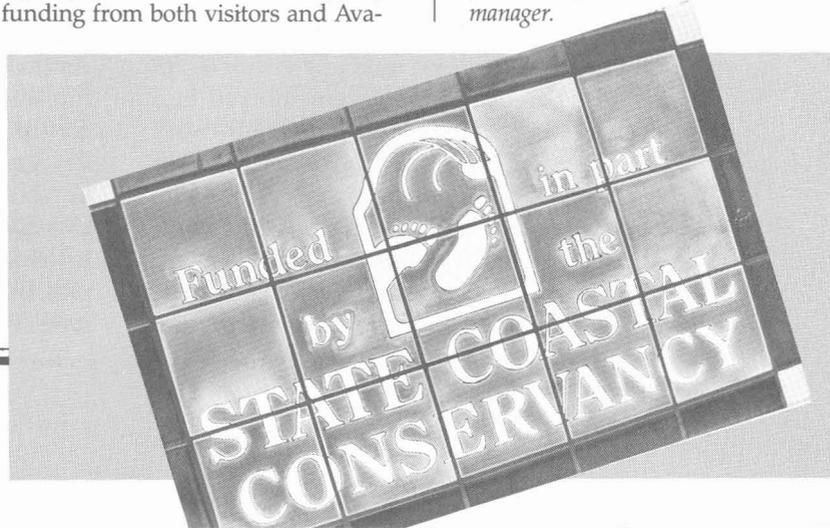
hiking and biking trails drawing the energetic into the island interior.

How is all this to be funded? There are a number of possibilities. Most importantly, the plan consists of a number of relatively independent segments, each of which can be separately funded and developed. The Coastal Conservancy is working with the city in preparing a funding package and implementation plan. The city's Harbor District and its Community Improvement Agency provide vehicles for tapping funding from both visitors and Ava-

lon commercial enterprises. In addition to the Coastal Conservancy, the state Department of Boating and Waterways is a likely source of state funding. The basic first step has been taken: Avalon has agreed on a new plan and has charted a course toward its realization.

—D.S.

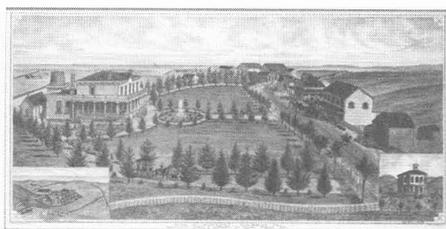
State Coastal Conservancy staff for the Avalon waterfront restoration plan are Marc Beyeler, Urban Waterfront Program manager, and Peter Brand, project manager.



DEWEY SCHWARTZENBURG

Walking: Further Historical and Ambulatory Dimensions

IN HER ARTICLE about the "historical dimension" of walking the coast, [Winter 1987], Margot Patterson Doss, doyenne of those who walk our beaches and trails and write about them, wonders why the tiny town of Purissima has faded from our maps and memories. I have often thought about



that for a very personal reason: the small unpainted building with the wide door on the right side of the view of Purissima [see illustration] is probably the

blacksmith shop that my father bought in 1910 or 1911, doubtless with high hopes for success.

Blacksmithing, however, was already on the way out then as automobiles were winning against the horse and buggy, and my parents did not stay long in Purissima. They did stay for a good tide season, as my mother often mentioned Purissima and the wonderfully tasty "rock oysters" they used to gather from the rocks nearby. (This was of course the jingle, *Pododesmus*.) I arrived in this world later, on September 29, 1911, but have since verified their excellent flavor. As with mus-sels, eating *Pododesmus* during red tide months is inadvisable, however.

The building boom failed in the Half Moon Bay region partly because the Ocean Shore Railroad was built across the face of Devil's Slide on an uncertain roadbed and could not maintain a regular schedule. Like all the other now-abandoned railroads in the bay region, the Ocean Shore is remembered in a lively book: *The Last Whistle*, by Jack R. Wagner. Here and there one can still see the trace of the railroad; the saddle at the top of Devil's Slide was cut for the right of way at the highest point of the line. But the old names are fading from the map as well as from memory. Purissima no longer exists as a town; only

Purissima [sic!] Creek remains in the *Coastal Access Guide*.

Most of Margot Doss's article is about historic walks along the coast, but in her mention of naturalists she omitted one of the greatest collecting naturalists, Thomas Nuttall, that professor from Harvard who walked down the beach at San Diego in 1836 to board the Brig *Alert* as a homeward bound passenger when Richard Henry Dana was a member of the crew:

... the last person I should have expected to have seen on the coast of California—Professor Nuttall, of Cambridge. I had left him quietly seated in the chair of Botany and Ornithology, in Harvard University; and the next I saw of him, was strolling about San Diego beach, in a sailor's pea-jacket, with a wide straw hat, and bare-footed, with his trousers rolled up to his knees, picking up stones and shells.

...

I knew him at once, though I should not have been more surprised to have seen the Old South steeple shoot up from the hide-house. He probably had no less difficulty to recognising me. . . .

The Pilgrim's crew christened Mr. N[uttall] "Old Curious," from his zeal for curiosities. . . .

—*Two Years Before the Mast*

Thomas Nuttall is remembered in the history of science as an extraordinary collector and explorer, a master of both botany and ornithology. He arrived in Monterey in 1836 by way of the Sandwich Islands after traveling by river boat and horseback from St. Louis to Astoria as a member of Wyeth's Brigade, enthusiastically botanizing all the way. He was considered mildly crazy by the trappers and voyageurs; Washington Irving described him as "a zealous botanist, and all his enthusiasm was awakened at beholding a new world, as it were, opening upon him in the boundless prairies, clad in the vernal and variegated robe of unknown flowers" (*Astoria*, 1836).

Nuttall walked the beaches near the mouth of the Columbia River and the California coast here and there from Santa Barbara to San Diego, and has been memorialized in the names of many plants and animals in the West. It is impossible for clambers to dig clams or cockles without sooner or later adding *Clinocardium nuttalli* or *Tresus nuttali*, and *Nuttallia nuttallia* to their catches, while tidepool aficionados may observe *Nuttallina californica*, a small chiton occasionally in mid-tide localities from Puget Sound to San Diego. Upland bird watchers watch for *Nuttallornis borealis*, *Phalaenoptilus nuttalli*, *Dendrocopos nuttalli*, and *Pica nuttalli*. Our Western dogwood is *Cornus nuttalli*.

Margot Doss remembered someone had walked the shore from Oregon to Tijuana a few years ago, but could not recall the name or the time. I think her mention of Purissima endows me with privilege to bring her story up to date.

The year was 1970. All along the coast of California there was concern for the future as the activity and pressure for subdividing and commercial development increased. The Legislature stalled while study groups and commissions met, deliberated, and produced reports. In 1972 it all came together when the voters approved Proposition 20, the Coastal Act.

It was in the climate of these times that Don Engdahl, a reporter for the *Santa Rosa Press Democrat*, decided to take his long walk from the Oregon border to Mexico, a distance of nearly 1,200 miles. He had written many stories about the Battle of Bodega Head, coastal subdivisions, park problems, and so on, and it occurred to him to look over the whole coast. "Also it ought to be good for my soul" he wrote at the outset. He planned to write a running account of his venture, and had contracted for weekly publication about the walk-in-progress in the *San Francisco Chronicle*. There was no room for a typewriter in his 40-pound pack, so he planned to write his weekly reports on borrowed typewriters in motels, restaurants, or bars, also borrow-

ing the paper. But he carried two cameras as well as the necessities of life.

Engdahl arrived at the Oregon line to start his walk in early June 1970. He strode into Mexico on September 26, four and a half months later.

He saw no private-property or no-trespassing signs until Mendocino County. The



COURTESY DON ENGDahl

Sea Ranch people gave him a special passport to walk their private abalone reserve shore; he was driven off by landholders only once or twice. He was given rides across rivers and except for the high cliff regions, like parts of the Lost Coast, he managed to walk on or near the shore for most of the distance. He came to feel best when alone at night on the beach and avoided using his light because it separated him too much from his world.

As Don Engdahl proceeded south, he became more aware of the need for public access as he saw ever more "Private Beach" signs and increasing industrialization.

His articles were a significant contribution to the passage of Proposition 20. We got our Coastal Commission, but recent events have demonstrated that it is little better than a holding action in a changing political climate. The pressure to privatize the shore has increased despite the Coastal Act.

The Coastal Commission has not been as strong as it should be against the forces of greed and self-interest. Of course, if we are patient enough, we can look forward to the coming century of rising sea level that will take care of all the problems by moving the shore further inland.

Joel W. Hedgpeth

Don Engdahl looking south at Oregon line.

These Mean Seas

Responding to Changes in Sea Level: Engineering Implications, by the Committee on Engineering Implications of Changes in Relative Mean Sea Level. National Academy Press, Washington, D.C.: 1987. \$19.95, 160 pp

Responding to growing concern about the rising sea level caused by global warming from the "greenhouse effect," the National Research Council assembled a committee of experts in coastal geomorphology, engineering, and physical oceanography. The report issued by the panel—the Committee on Engineering Implications of Changes in Relative Mean Sea Level—discusses both the observed rising sea level and the projected accelerated rate of sea level increase.

This recommended reference establishes a basis for responsible long-term planning, design considerations, and policy development along our coastlines. It should prove useful to planners, engineers, and government agencies, since decisions made today by coastal communities may limit the options for shoreline protection in the future.



JIM MILTON

In its report, the committee focuses on specific engineering aspects of coastal geology and provides a range of scenarios for rates of change in relative mean sea level. The report examines associated changes in the magnitude and mechanics of affected hydrodynamic processes, such as storm surge and tidal ranges, and describes their potential impact. Generally, the response options available are limited to stabilization or retreat from the shoreline. Deciding on an appropriate

strategy will depend on a variety of site-specific conditions and regional constraints.

The report provides a concise assessment of responsive strategies for various coastal infrastructures ranging from piers and wharves to landfills and waste disposal sites. Discussion of these varied approaches helps the reader visualize how developed shorelines may potentially respond to the dynamics of a rising sea level.

While recommending that "the prognosis for sea level rise should not be a cause for alarm or complacency," the committee found a high probability that the sea level will rise at an accelerated rate within the next century. Deciding whether we should abandon or protect coastal facilities will mean choosing among numerous economic, social, and environmental consequences. The committee's conclusions support the need for increased research efforts, based on monitoring and data analysis on a global scale. Expanding our scientific knowledge of coastal processes and the development of appropriate engineering responses are advisable, given the range of local variability and statistical uncertainty.

—Mark E. Wheatley

Mark E. Wheatley is an intern with the Coastal Conservancy.

Easement Handbook

The Conservation Easement Handbook: Managing Land Conservation and Historic Preservation Easement Programs, by Janet Diehl and Thomas S. Barrett. Trust for Public Land and the Land Trust Exchange, 1988. \$19.95, 269 pp

Janet Diehl and Thomas Barrett, with eight other contributors, have produced a very useful, easy-to-understand handbook that will prove indispensable to a wide readership. Although geared toward land conservation organizations that use easements as a tool to protect and preserve important open space, this volume will be a great resource tool for many others.

Landowners will appreciate the section on IRS-related information and tax-deductible easement donations. Attorneys will find helpful the section on legal issues, and information on appraisals, termination of easements, tax benefits, and IRS audits. For land trusts, there is a guide to acquisition and useful material on how to monitor, enforce, and market an easement program.

In a chapter explaining his "Zero-Value Approach," attorney William T. Hutton makes clear that land trusts incur long-term costs when they accept an easement. While the donor may claim a tax deduction in making the gift, the recipient "rarely finds its balance sheet enhanced" by it because "monitoring and enforcement of easement obligations create net balance sheet liabilities. From the donee's perspective, then, the donated silk purse is transformed, at the moment of conveyance, into a sow's ear destined for perpetual care."

The book is dense with detail, yet is clear, readable, and thought-provoking. Of special value are the step-by-step guides, inspection forms, examples, checklists, and sample criteria forms from various land trusts. Special thanks to the authors for the appendix containing IRS codes, reference text, further suggested reading, and useful contacts.

—Yolanda Henderson

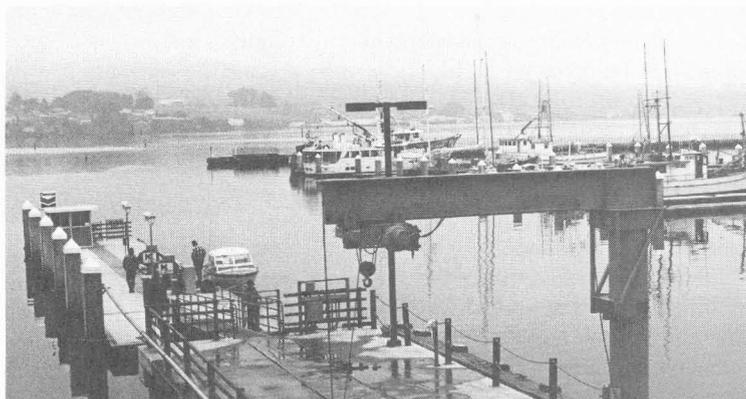
Yolanda Henderson is a project analyst at the Coastal Conservancy. She provides technical assistance to landowners and nonprofit groups.

Small Waterfront Revival

Waterfront Revitalization for Smaller Communities, Robert Goodwin, editor. University of Washington Marine Advisory Services, Seattle: 1988. \$12, 207 pp

This useful volume presents papers from a 1987 regional conference that focused on small city urban waterfront revitalization in the Pacific northwest. Topics include economics, financing, and policies for promoting waterfront restoration; waterfront facilities management; tourism; revitalizing

the working waterfront; the roles of port administrations, consultants, nonprofit organizations, and community groups; and waterfront interpretation. Several interesting case studies of small city waterfront redevelopment efforts are presented.



PETER GRENNELL

The papers are mostly down-to-earth, practical accounts of actual problems encountered and of accomplishments. They stress the importance of comprehensive planning and specific but flexible regulations for guiding waterfront redevelopment. Different financing mechanisms are discussed in some detail in several papers. Several authors emphasize the importance of cooperative efforts and community commitment to revitalization.

In his keynote address, Brian Boyle, Washington state commissioner of public lands, takes note of new state legislation to create conservation management areas (including waterfronts). Their protection and restoration will be funded by a 0.06 percent increase in the real estate transfer tax.

Waterfront Revitalization should prove valuable to small waterfront communities that can benefit from the recent experiences of other localities faced with similar problems of declining traditional industrial bases, shortage of financing, balancing local and visitor needs, and retention and enhancement of a salubrious but often threatened way of life.

—Peter Grenell

Peter Grenell is executive officer of the Coastal Conservancy.

Pacific Coral Blues

IN SAN FRANCISCO, the California Academy of Sciences Steinhart Aquarium has proudly opened a new exhibit, the "Living Coral Reef," created in a 6,000-gallon tank after much research and preparation.

Across the Pacific, on the island of Ishigaki in the Ryukyu Archipelago, the wondrous, fully alive Shiraho coral reef, one of the last healthy coral reefs in all Japan, is about to be paved for an airport. It includes an ancient stand of blue coral and is a natural resource of worldwide importance.

John E. McCosker, director of the Steinhart Aquarium, is saddened by the irony as he contemplates the tiny slice of Pacific coral reef in his care--a treasured, carefully nurtured captive. He is reminded of the passenger pigeon, "a species that once numbered in the hundreds of millions, the last of which died alone in a cage in a zoo." He reflects: "How sad it will be when the only coral reefs of the tropical Ryukyus are also behind glass."

In the Philippines and other tropical countries, coral reefs are being dynamited, and poisoned by sodium cyanide to allow easier capture of fish for the aquarium industry and even for food. In Japan they are dying because of toxic agricultural runoff, heedless development and resulting sedimentation, and attacks by giant starfish.

The 10-year-old plan for a second, larger jet airport on the small island of Ishigaki is moving toward final approval this summer. The announced goal is to allow larger groups of tourists to fly in from mainland Japan. Shiraho villagers are opposed, for their culture and livelihood depend on the abundant sea life of the reef. Some other islanders, however, hope the project will generate new jobs.

A growing international chorus has appealed to the Japanese government to reexamine need, consequences, and look at alternative sites. In February,

the General Assembly of the International Union for Conservation of Nature and Natural Resources, declaring that "the Shiraho Coral reef ecosystem contains a biota world-class in its diversity of corals and fishes," urged that it be given "the strongest degree of protection possible."

On June 3, four leading American poets answered an appeal from Japanese poet Nanao Sakaki, their old friend, by staging an "Eco Poetry Round Up" in San Francisco to help the Shiraho villagers fight for the reef. Allen Ginsberg, Gary Snyder, Joanne Kyger, Michael McClure, with actor Peter Coyote as master of ceremonies, were all friends from their Beat days but had never appeared on stage together as one group. The event drew an overflow crowd and was widely reported in Japan, though not at all in California.

Before the reading, a Japanese TV reporter asked: "Why should American poets be concerned about an Okinawan coral reef?"

"The Pacific is our shared ocean," said Snyder. "It's all part of our community of the Pacific rim, and what happens in Japan concerns us. And we hope that people in Japan would be concerned about issues that bother us here, like clear cutting old growth timber."

Coyote said: "If we are going to participate in a world economy, we have to take responsibility for the world. So if I buy a Michael Jackson record--which Japan now owns--I don't want to think that my dollar is going to pay for the destruction of this coral reef and this piece of the planet."

"I want to visit your coral garden," said Kyger.

"Do you think prosperity and conservation of nature can go together?" asked the reporter.

"Always," said Ginsberg. "One example: Make Ishigaki prosperous by bringing people to study coral and

nature and the fisheries; to make it a base for exploration of how we can live with nature."

"There is no prosperity unless human beings are in touch with their deeper natures," added McClure. "Which is why, I think, we poets concern ourselves with these issues; because we're concerned with our nature, which connects with the nature of the planet, which connects with all other natures in the rest of the universe."

Nanao Sakaki's long silver hair shone under the lights as he sat stage front to begin. On his bare feet were sea grass slippers, a gift from one of the elderly Shiraho women who had flung themselves against policemen protecting a hard-hatted crew of surveyors. Some of the poets had seen her, in an Okinawan TV documentary, as she collapsed in the sand, weeping while police and the crew proceeded. She had made slippers for each of the poets, in gratitude.

"Oh My Buddha, ..." Sakaki read, "With help of giant star fish Japan destroyed 90% of her coral, Here, another Kamikaze project--the last gorgeous, motherly reef of Okinawa will be buried underneath a new tourist airport."

Afterwards, the Steinhart Aquarium gave a reception for the poets. As they gazed at the new Living Reef exhibit, they wondered, as John McCosker had wondered, what would remain of the wondrous coral world for grandchildren to explore.

Does the Shiraho reef have to die? In their message addressed to Friends in Japan, the five poets wrote: "As full voting members of our global community you have in your care the future of voiceless livingbeings who share your domain. ... By preserving rich zones of life and diversity you may protect an international treasure."

Rasa Gustaitis



Mystery Photo

And speaking of transportation ... identify this marine menagerie arriving (we promise) on California's golden shore, and receive a subscription to *Waterfront Age*, absolutely free.

We were delighted to see how many readers correctly identified last issue's mystery photo as Point Reyes. We were even more delighted with the incorrect guesses, among them ... Hearst Castle.

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