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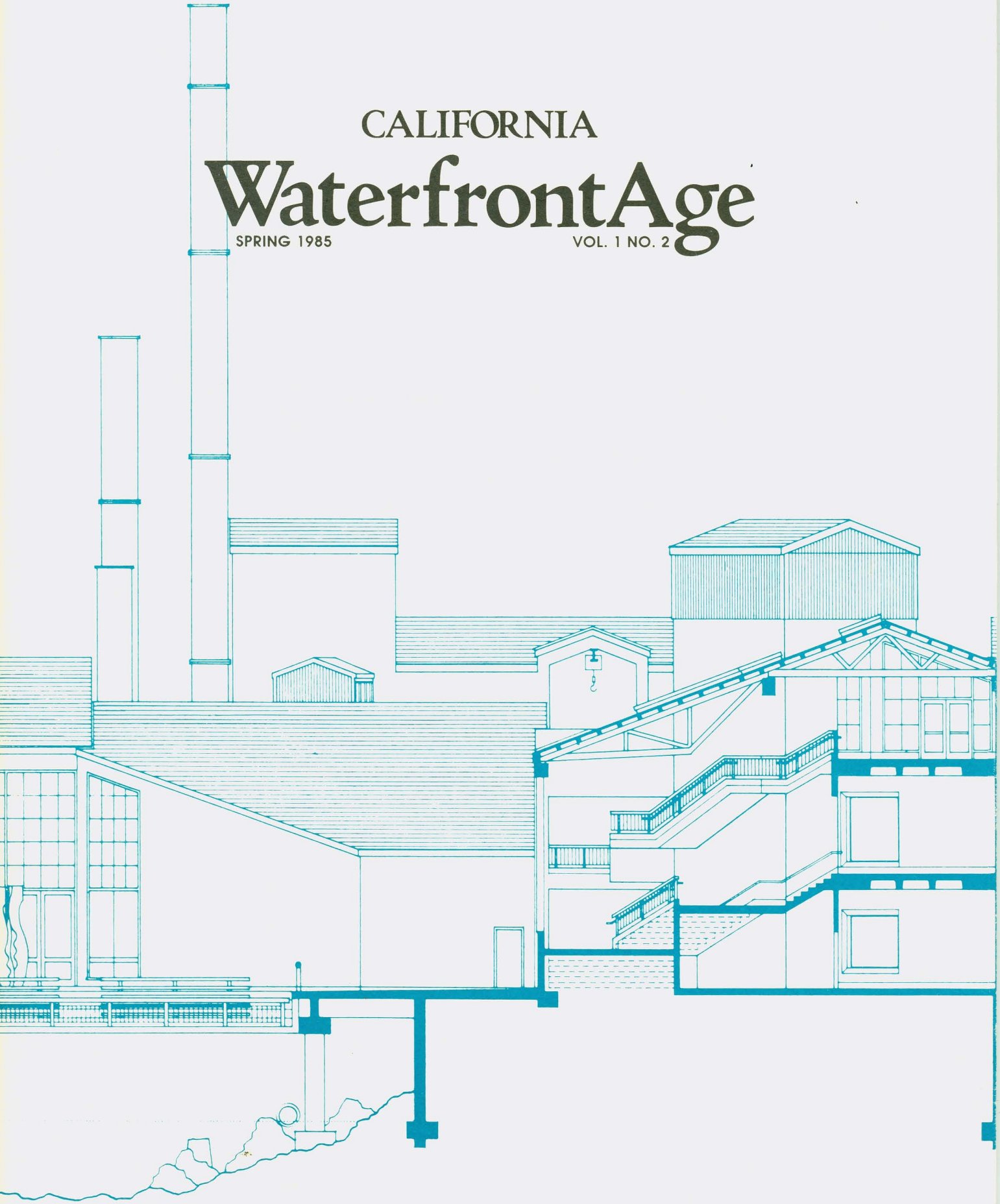
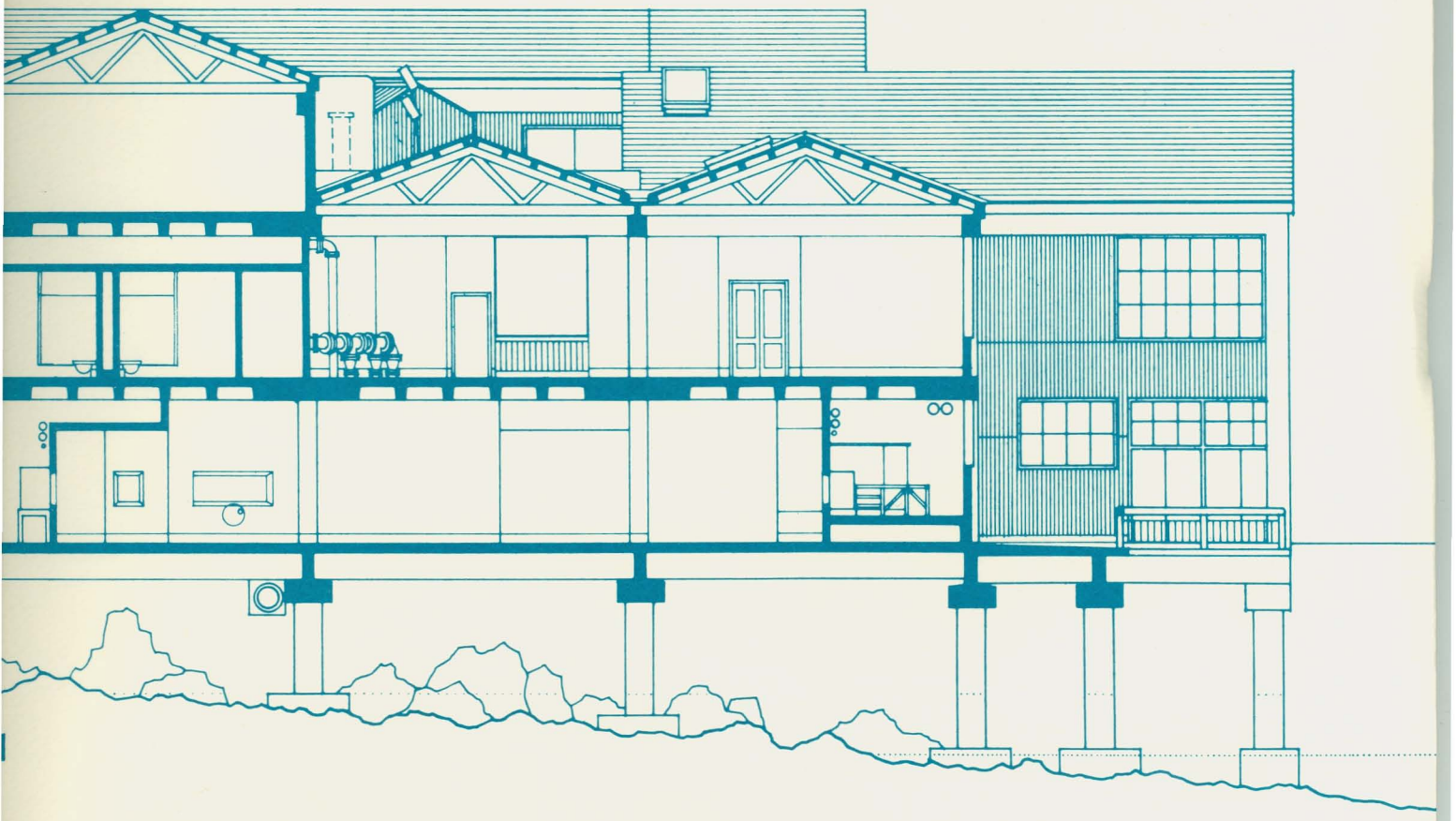
CALIFORNIA Waterfront Age

SPRING 1985 VOL. 1 NO. 2





CALIFORNIA
WaterfrontAge
SPRING 1985 VOL. 1 NO. 2

STATE COASTAL CONSERVANCY
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The cover drawing of Monterey Bay Aquarium is by Jim Lattz.

LETTERS

Dear Editor:

While at a recent conference sponsored by the California Coastal Commission on California's eroding coastline, I had an opportunity of receiving and reading Volume 1, No. 1 of *California WaterfrontAge*.

I wish to congratulate you, the Coastal Conservancy staff, and the San Francisco Bay Chapter of the Oceanic Society for this fine publication. I found its articles very interesting, easy to read, and with no "bureaucratic sell."

The attached catalog of Government Assistance for Waterfront Restoration was a very informative piece from which, I'm sure, local agencies can profit.

I wish you a long and successful run with this magazine.

Michael M. Randolph, Director
Community Development and Services
City of Pacifica

Dear Editor:

I am much impressed by the first issue of your new magazine. Every time I see the title, I want to reach for an editorial pencil to insert space between waterfront and age. But then I remember that you are probably using the real estate term, "waterfrontage." Anyhow, the magazine is fine, and I liked Anna Kondolf's lighthouses especially.

I'd like to suggest a correction to the last paragraph in the Monterey Aquarium piece. The last sentence says Monterey's downtown wharf has "ample parking." It's true that there is a lot of parking space adjacent to the wharf; the problem is that it's already always filled—year round.

The point is that there is already an overload of visitors, primarily tourists, at both the wharf and aquarium. A trolley is being proposed to move people from wharf to aquarium and back. A transportation study, just out, says, "A properly designed rail vehicle, patterned after old-time trolleys and using a railroad line that once carried authentic trolleys, would be a strong attraction to visitors. . . " Then it goes on to say, "It is estimated by JHK that as many as 200,000 additional visitors per year might be attracted to the area by a trolley system on the old railroad right-of-way."

In other words, the solution to the parking problem would serve to compound the parking problem.

Rod Holmgren
Sierra Club - Ventana Chapter
Carmel, California

Dear Editor:

Thank you for the copy of the Coastal Conservancy's new magazine. It was an excellent issue with a great deal of interesting material. I thought the Catalog of Government Assistance for Waterfront Restoration was an especially informative section and will certainly be useful to many people. I also liked the graphics.

J. Jay Feinberg
Long Beach, California

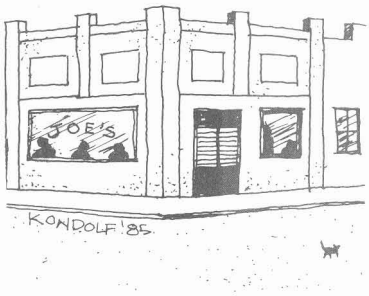
(Ed: Mr. Feinberg owns the Queensway Bay Hilton in Long Beach and is an active developer.)

Letters to the editor are encouraged. Address all correspondence to California WaterfrontAge, *State Coastal Conservancy, 1330 Broadway, Suite 1100, Oakland, CA 94612.*

JOE'S CORNER

Joseph E. Petrillo

THROUGHOUT THE years I have been involved in coastal management, I have been constantly struck by how an otherwise commonplace waterfront development can be transformed through the inclusion of public access, both visual and physical. While the land developer's three basic rules for successful development are location, location, and location, the rules for the public agency governing the shoreline should be access, access, and more access. Unfortunately, the land developer's locational requirements and the agency's access requirements are often considered incompatible. But on the waterfront, private development and public access can work to enhance each other.



In urban waterfront design, the rule of access has a powerful effect on the rule of location. On a site near the ocean, for example, if the ocean view is blocked or if the people using the site can't reach the beach safely and easily, then the site's proximity to the water is of little value to developers.

In California, some recent developments have integrated location and access with, I believe, spectacular results. I would like to describe two of these.

Above Dana Point Harbor in Orange County rises a sheer bluff. A small coastal canyon splits the face of the bluff and the property behind in two. Some time ago, a developer carved terraces in the bluff to get fill for the harbor; the bluff now looks like a giant amphitheater facing the harbor. Despite the radical grading, the bluff remains unparalleled for viewing that part of the southern California coastline, which could rival the Amalfi coast.

The owner of the property originally intended to build single-family housing on the terraces up the bluff. This would effectively have made the site unusable to the public. Following a long struggle with the California Coastal Commission, the developer agreed to set back the housing well behind the bluff edge on the half of the property upcoast of the canyon; on the downcoast half, he agreed to build a large park and hotel complex.

On the upcoast section of the bluff, the developer has constructed a magnificent series of viewing rings connected by a sinuous path winding down from terrace to terrace. The viewing platforms resemble nothing else that I have seen in their extravagant celebration of public access. If one stands on the topmost viewing area, one can see the wide arc of the coast stretching to the south as well as the pathway crossing the canyon and snaking up into the still uncompleted park downcoast.

An elegant iron fence separates the viewing terraces from the building pads behind the bluff, which are prepared to take what will certainly be expensive housing. Townhouses and other structures already completed on other portions of the property provide an almost Mediterranean flavor to the area. The variety of style and type in the cosmopolitan collection contrasts markedly with the visually uninteresting development in the area surrounding this property.

Further north, in Dana Point, similar access requirements imposed by the Coastal Commission have reshaped what promises to be another notable coastal development. Already, one of the most elegant hotels in California sits on a spectacular bluff. The original developers wanted to build housing there instead, but the Coastal Commission demanded that the oceanfront property be devoted

continued on page 46

EBB AND FLOW

Seal Beach Pier Reopens

On January 27, exactly two years after a winter storm ravaged the Seal Beach Pier, several thousand local residents gathered to celebrate its reopening. On that date in 1983, a storm had removed two sections from the middle of the pier. Six weeks later, a second storm destroyed the remaining mid-section and left the end of the pier, with its restaurant and tackle shop, stranded several hundred feet from shore. Governor Deukmejian declared a state of emergency in Orange County, which allowed the Federal Emergency Management Agency to pay for seventy-five percent of the pier's repair. The Wildlife Conservation Board, the State Coastal Conservancy, Orange County, and a group of local citizens called "Save Our Pier" provided the additional funding.

In all, project costs came to $2.5 million. The rebuilt sections of the pier have decorative benches and lamp posts, new catwalks, and ample railing space for fishing. While still a far cry from the "Jewel City" amusement park built on the pier in 1906, the rebuilt pier will again provide the community with a chance to eat, stroll, and fish over the water.

Rail Link Bought to Santa Cruz Shoreline

Locomotive fanatic F. Norman Clark has bought, "for several million dollars," a nine-mile stretch of Southern Pacific train track running from the carousel on the Santa Cruz boardwalk to the town of Olympia in the hills east of the ocean. The 110-year-old line meanders through spectacular stands of redwood, oak, and madrone in Henry Cowell Redwoods State Park. The line also runs past the Roaring Camp and Big Trees Narrow-Gauge Railroad, another locomotive attraction dreamed up and operated by Clark.

The Southern Pacific line shut down two years ago after minor storm damage. Clark plans to repair the line and operate two old steam locomotives on it. He hopes to serve a lumber mill and gravel company that used to be freight clients of Southern Pacific. He also hopes to convey passengers in replicas of old rail cars formerly called "skunks." If Clark gets his way, tourists on the shore at Santa Cruz will be able to see countryside inaccessible by automobile.

"I get a pioneer feeling," Clark explained, "and a railroad is a way of working in that tradition."

Ecocenter Under Construction

The Yosemite Institute, a nonprofit educational institution founded in 1971, is building an important addition to its Marin Headlands campus. Called the Ecocenter, it will provide science facilities geared primarily to children.

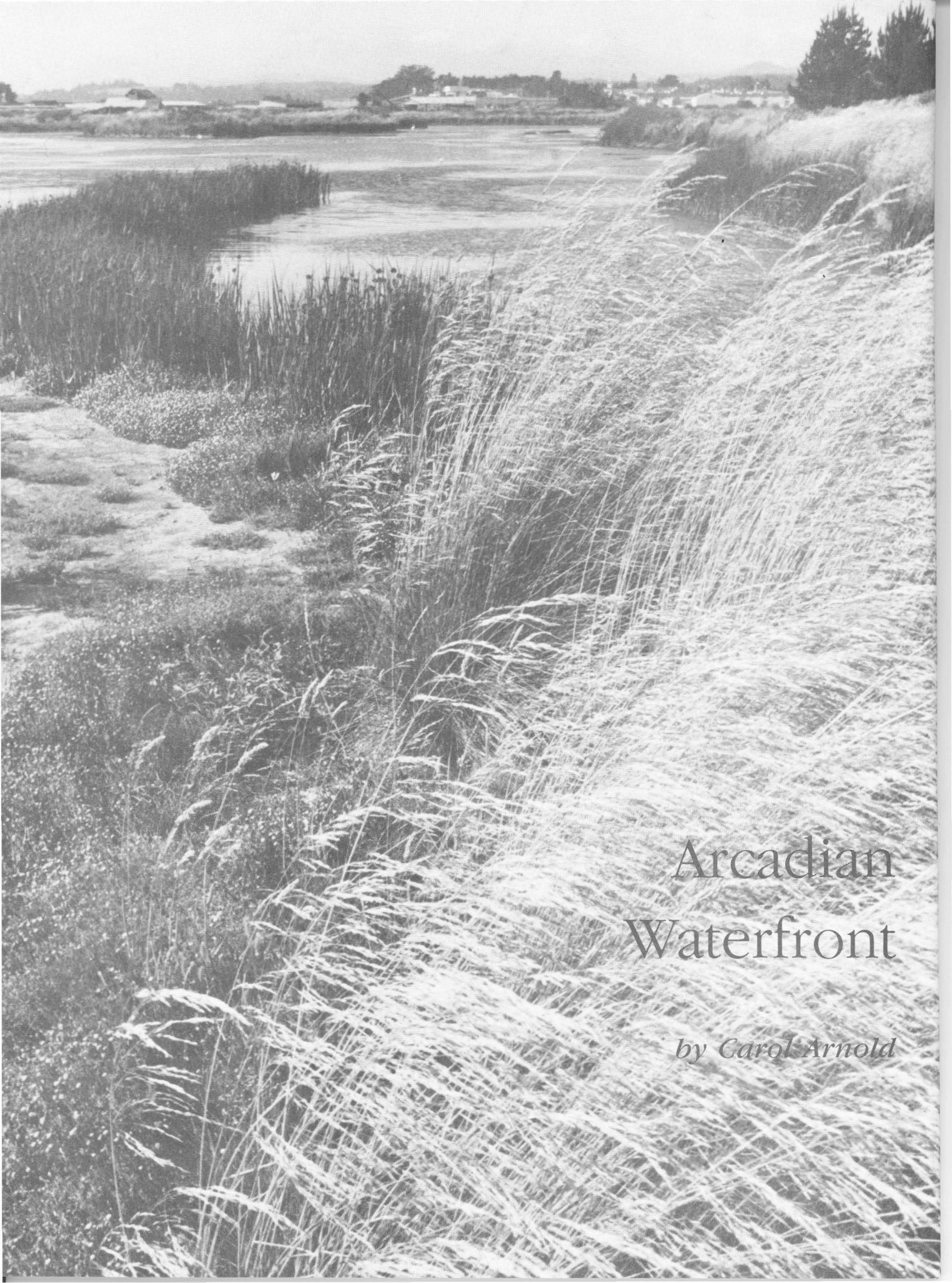
The Yosemite Institute's two campuses complement traditional science teaching in public schools with innovative, outdoor education. Students at the Marin campus, located on the coast between Point Reyes and the Golden Gate Bridge, typically stay one week to learn about coastal ecology. Outdoor exploration and field work are emphasized. The Ecocenter will add much-needed indoor facilities—a laboratory, classrooms, and an orientation room to prepare for outdoor trips. Filled with large windows and skylights, the structure is designed to focus attention on the spectacular coastal scenery outside.

Conservancy's Recent Waterfront Projects

On January 17, 1985, the State Coastal Conservancy authorized $177,000 in additional funds for the restoration of the Santa Monica Pier. The first phase of pier restoration is going ahead now. With $500,000 previously granted by the Conservancy, the city is ready to build Carousel Park, near the renovated carousel at the pier's northeast end. A 5,000 square-foot children's park will be built along with a separate terraced park for up to 200 volleyball spectators. The additional funds from the Conservancy will pay for a 4,000 square-foot retail area, to be located below a new deck extension overlooking the park. The retail space should pay for itself in several years, and will then help provide additional revenues for the pier.

The grant is also intended to help implement a special-events program at the Santa Monica Pier. Conservancy funds will enable the city to purchase and furnish a tent which will be used for special events at the pier. These events will range from music, dance, drama, and art exhibitions to athletic contests and demonstrations.

Also at its January 1985 meeting, the Conservancy authorized a reimbursable grant of $900,000 to the city of Oceanside for the acquisition of three vacant, privately-owned parcels on the Oceanside Strand. These new acquisitions will complete the Strand Beach Park, a joint effort of the city and the Conservancy since 1980. The Conservancy has worked with the local community since 1977 to develop and carry out a plan for the revitalization of the Oceanside Strand, an area which has had little private investment and has suffered from substantial physical deterioration. The acquisition of the remaining parcels of land needed to create the Strand Beach Park fulfills one of the principal recommendations of that plan. □



Arcadian Waterfront

by Carol Arnold

ON A TYPICAL Saturday morning in the city of Arcata, from fifteen to twenty-five people gather for an Audubon Society tour of one of the town's major outdoor attractions—the Arcata Marsh and Wildlife Sanctuary, a seventy-five acre expanse of marsh, lake, and upland on the shores of Humboldt Bay. Stopping at well-placed observation points, the group watches the freshwater marshes unfold a rich variety of birds and other wildlife. The tour guide explains how unusual the sanctuary is; almost ninety percent of Humboldt Bay's wetlands have been destroyed by filling, diking, dredging, and other human activities.

As the morning wears on, the sanctuary brings other visitors who may barely notice the birds. Some come to bicycle, jog, or hike, others to fish for trout, still others to relax and contemplate the quiet beauty of the surroundings. It is hard to believe that this refuge was not always a natural delight; until recently, the sanctuary was a garbage dump, and if not for an unusual convergence of diverse interests, it would have remained a place to be avoided, not cherished.

Located on Arcata's southern waterfront, one and a half miles from the center of town, the sanctuary was originally part of an extensive salt marsh system. On the arrival of white settlers, the site—along with much of Humboldt Bay's shoreline—was progressively drained and diked for agricultural and industrial use. In the early 1960s, Humboldt County residents began using it as a sanitary landfill, a polite euphemism for what a former city official described as a "blighted, miserable, open dump."

By the late 1970s, the city had embarked on a project to transform the landfill into a more productive waterfront. First conceived as a sewage treatment facility, the project evolved into an extraordinarily successful combination of public works, natural resource restoration, and recreational access. Today it is hailed by an unlikely assortment of interests: city engineers, coastal protection agencies, water quality regulators, university professors, local politicians, environmentalists, sportsmen, businessmen, and tourists.

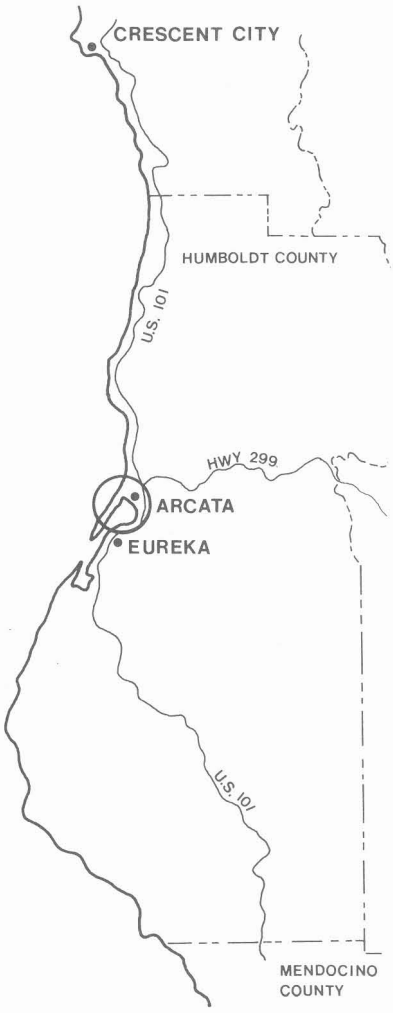
Most planners only dream of this kind of consensus. The consensus came about because the proponents of the project paid attention to the real needs and desires of the city's inhabitants. The Arcata experience shows that conservation, public works, and recreation are not only compatible but often mutually beneficial; all can

Editor's Note: In the first issue of *California WaterfrontAge*, we saw how Long Beach resolved its shoreline planning issues. Small cities in rural areas also play a vital role on the coast. This article shows how one such city transformed its waterfront.

be woven into a waterfront restoration project that serves a diverse population and makes economic sense.

LOCATED SEVEN seven miles from the city of Eureka, Arcata is a stable town of 14,600 residents. Catering primarily to the logging industry and Humboldt State University, the town's economy is service oriented. With its large student population, Arcata has a young and creative flair which, in combination with a progressive city government, encourages imaginative solutions to common problems.

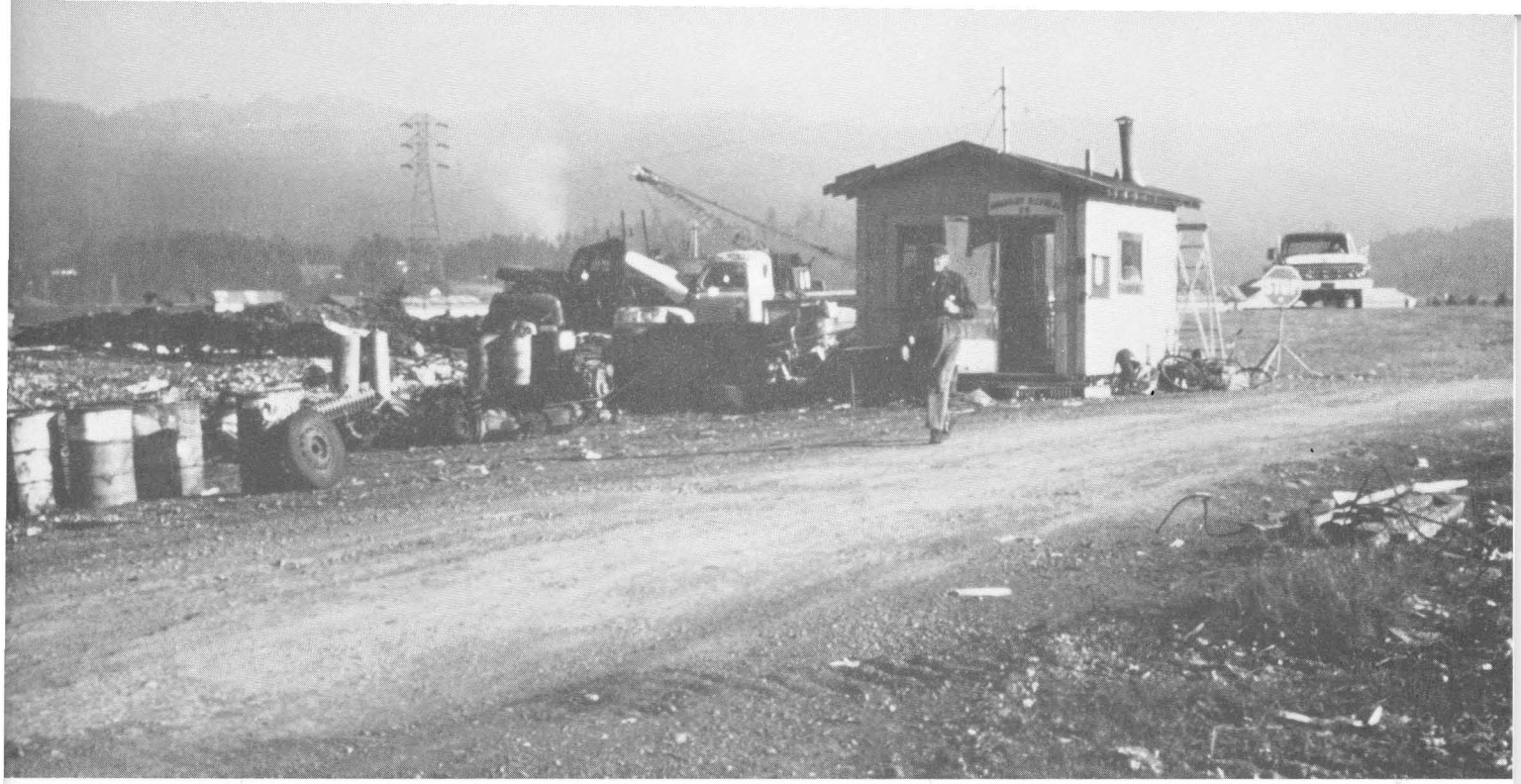
In the late 1970s, the site of the sanctuary consisted of twenty-six acres in private ownership, containing marginal grazing land and abandoned lumber mill debris, and forty-nine acres of city property, containing the landfill and a remnant salt marsh. New water quality regulations had forced the closing of the landfill because of its potential for polluting Humboldt Bay. A covering of clay transformed the site from a "miserable open dump" to a large mound of dredge spoils. Dubbed "Mount Trashmore" by the locals, the site remained an eyesore.



Faced with this nuisance, the city came up with several proposals. Some of the first ideas included a marina, a Little League baseball park, a golf course, and a motorcycle racing track. In the meantime, however, certain regulatory changes were brewing which would eventually lead the city to discard all of these proposals.

New state regulations imposed restrictions on the release of treated sewage effluent into enclosed bays and estuaries. To comply with these regulations, the Humboldt Bay Wastewater Authority proposed a regional treatment system that would eliminate Arcata's treatment plant and transfer effluent discharge from the bay to the ocean. This idea did not sit well with the city and its public works staff, who argued that the regional system would raise the city's costs without bringing any environmental benefits. Under the guidance of its director, Frank Klopp, the public works staff searched for an alternative, and out of their imaginative efforts came the idea of a restored marsh.

Taking advantage of a provision that would allow the city to continue releasing effluent into Humboldt Bay if that could be shown to enhance the resources of the bay, the staff proposed a plan for biological treatment of the city's wastewater using a system of freshwater marshes. They consulted Dr. George Allen



Before restoration

and Dr. Robert Gearheart from Humboldt State University, authorities in the fields of aquaculture, wildlife, and wastewater. Pooling their talents, the group designed a marsh treatment system that would result in high quality effluent and would grow fish and attract birds to boot. They decided to place the new marsh system at the old landfill site, directly north of the city's existing sewage treatment plant and oxidation pond.

Naming this concept "The City of Arcata's Integrated Wastewater Treatment Reclamation and Salmon Ranching Project," the city sought state approval to continue treating wastewater locally and discharging into Humboldt Bay. The city argued that, in addition to producing high quality effluent, the freshwater marshes—nourished and irrigated by wastewater—would provide productive bird and wildlife habitat on the shores of the bay.

WHILE THESE plans were being developed, the State Coastal Conservancy was launching its coastal resource enhancement program, designed to promote the preservation and enhancement of wetlands and other natural resources along the coast. When it learned of this possible source of funding, the city asked the Conservancy for assistance. Since it is not the business of the Conservancy to fund sewage treatment facilities, the agency told the city that only a plan which

emphasized the creation of wetland habitat or the provision of recreational access would be considered for Conservancy funding. However, the Conservancy was not opposed to using wastewater for marsh irrigation if that could be shown to work. Looking for a pilot project for its enhancement program, the Conservancy offered to help the city with planning and funding if wildlife and recreational benefits, as opposed to wastewater treatment, became the primary focus of the project.

Encouraged by the Conservancy's interest (and, alas, money), the city decided to develop the project for its resource and recreational values. The city was aware of the benefits such a project would offer. Freshwater wetland habitat was essential for thousands of migratory birds traveling the Pacific Flyway and had been severely reduced in this area. Residents of Arcata and tourists visiting the north coast needed conveniently located recreational opportunities. Students and staff at the university, where the natural sciences are a prime focus, could use the area for study and research. Much of the existing site was an eyesore and needed major restoration. Full cooperation could be expected from coastal planning and resource management agencies. And last but not least, sometime in the future the project might

still fit into the sewage treatement plans of the public works department. With all this in mind, the Arcata Wastewater Treatment Reclamation and Salmon Ranching Project was put on the back burner and the Arcata Marsh and Wildlife Sanctuary was born.

From this point on, the Conservancy and the city worked together to see the project to fruition. With an initial grant of $35,000 from the Conservancy, the city hired consultants to prepare a feasibility study, which formed the basis of an enhancement plan. During this time, the city and the Conservancy maintained close ties with all interested state and local agencies. They set up a task force, held public hearings, and enlisted the help of nonprofit organizations and countless volunteers. Humboldt State staff provided technical expertise. The project had the strong support and assistance of many city officials, including the mayor (now District Assemblyman), Dan Hauser.

The Conservancy approved a second grant of $72,000 to purchase the three parcels in private ownership, needed because of the size of the project. A third grant of $235,000 was authorized for project implementation. Much of the work was performed by crews from the city and the California Conservation Corps,

thereby lowering construction costs substantially.

Finally, in June 1981, the Conservancy granted $19,550 to install trails, picnic tables, benches, bird-watching areas, fences, signs, and other visitor-serving facilities. Many volunteers helped with this phase of the project, building bird blinds, spreading sawdust for trails, and replanting vegetation.

REQUIRING ONLY only two and a half years from feasibility study to completion, the project was formally dedicated as the Arcata Marsh Wildlife Sanctuary on July 4, 1981. As finally constructed, the sanctuary contains three freshwater marshes totalling thirty-one acres and a twenty-two-acre recreational lake. The former landfill—now covered with grasses, shrubs, and small trees—contains trails, bird-watching areas, benches, and a small remnant salt marsh. Trails to bank fishing sites rim the lake. Small islands in the marshes and lake provide protected resting areas for birds. Cars can enter the sanctuary and park on the shores of the bay at the only shoreline access point in the city of Arcata. Attractive interpretive signs have been placed in the sanctuary explaining the ecology and animal life of the area. A degraded waterfront site has been restored to a scenic area offering wide vistas, solitude, and a much needed place for town dwellers to enjoy the bay.

Current use figures confirm the project's success. The city estimates that the sanctuary receives approximately 93,000 visitors a year. The freshwater marshes draw numerous students and professors from Humboldt State for research projects. Over 160 species of birds frequent the site. Although aquaculture is not currently being pursued, the sanctuary's lake is stocked with steelhead and rainbow trout.

And what about the Arcata Integrated Wastewater Treatment Reclamation and Salmon Ranching Project? It is alive and well, at least in modified form. Although the sanctuary has not yet been used for actual wastewater treatment, the public works staff has proven through a pilot marsh study that the resources of Humboldt Bay will be enhanced if secondary effluent is run through the marshes before it is released into the bay. Thus, the city has obtained approval to use treated effluent to irrigate the marshes. The city will save substantial sums of money by continuing to treat its wastewater locally and to use the bay for discharge.

The city has since developed other wetland projects

at degraded waterfront areas. The Conservancy has assisted with two of these: the opening of a seventeen-acre diked salt marsh to tidal circulation, and the rerouting of a channelized slough to a more natural course. Both projects are adjacent to the sanctuary and will provide recreational access. Eventually, the city plans to link all trails within the sanctuary and other wetland projects in a network that will connect with the Redwood Coastal Trail.

These experiences demonstrate that a wetlands project can successfully restore a degraded waterfront area and provide substantial benefits beyond increased wildlife habitat. As important as our natural resources are, the huge investment of money and effort necessary to enhance these resources will be easier to accomplish if multiple benefits occur. The Arcata project makes clear that increased recreational and educational opportunities, public works uses, aesthetic improvements, and wildlife benefits can all work to reinforce each other if project designers are creative and accommodating.

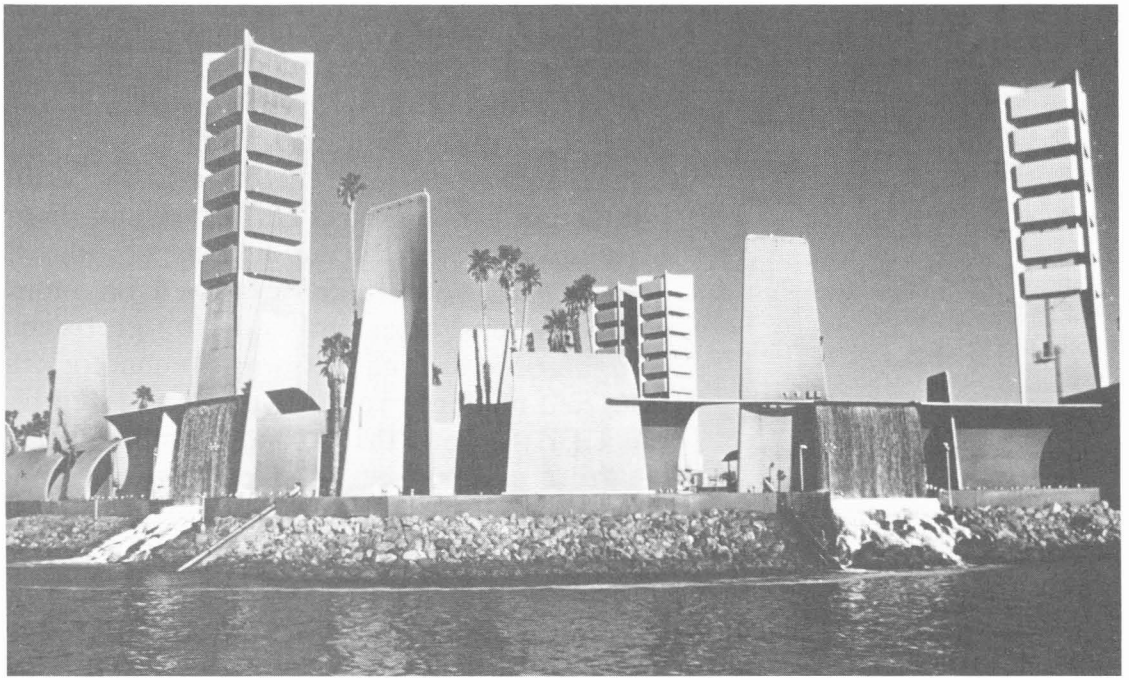
In a world of environmental horror stories, the Arcata experience is a home-grown success. Beyond its value as a planning model, perhaps its major contribution is the validation of a larger truth: Not only are human beings very capable of making things wrong, they are also, when motivated, marvelously adept at making them right. □

Carol Arnold is a project analyst in the Conservancy's coastal resource enhancement program.

PERSPECTIVES OFFSHORE OIL

Offshore oil development continues to be the single most debated coastal issue in California. In last winter's *California WaterfrontAge*, William Travis examined the aesthetic basis of the debate, with a focus on Santa Barbara County. Here we offer two more contributions, from very different points of view. Arthur Spaulding outlines the oil industry's position, and Robert Sollen looks at the problems facing county government in Santa Barbara.

America's Future
Where the Oil Is



by Arthur O. Spaulding

"Long Beach's oil islands are part of one of the most productive oil fields in the United States, even though they don't look like it. They look like clusters of high-rise hotels in a tropical island setting. The THUMS islands . . . are a prime example of the compatibility of oil operations with an aesthetically sensitive environment."

ALTHOUGH TODAY there is a surplus of oil in the world market, oil production in the United States is declining and oil imports are growing. By 1990, experts say, the United States will be more dependent on OPEC than ever and increasingly vulnerable to economic blackmail. Right now, we are using more oil from our in-the-ground reserves than we are finding; and, while much more slowly than in the past, America's energy needs will continue to rise.

Most everyone understands the need to step up exploration for domestic oil. Common sense says we look for oil where we believe we will find it, which leads us to the widening debate on offshore energy development along the coast of California.

Even some critics agree that offshore drilling and production have an excellent record and that offshore platforms represent the cutting edge of industrial technology. The wooden derricks used on piers in the early days have been replaced offshore by multilevel computerized drilling platforms. Technology that once restricted platforms to thirty-foot water depths has advanced to the point that oil and gas production in water depths of more than 1,000 feet is now possible.

The state-of-the-art structures are made of steel, or occasionally steel and concrete, and are specially designed and built for each offshore location. The typical platform is designed to accommodate up to forty-eight wells, using directional drilling techniques. It is much like a spider with many legs reaching out in different directions underground. The wells from a single platform may extend over an area of several thousand acres at various depths below the ocean floor.

The design of each platform takes into consideration the environmental characteristics of its location. Offshore platforms along the California coast are designed to withstand Pacific winds, heavy seas and tidal waves, and major earthquakes. Energy companies are meticulous about safety. Crew members are trained extensively, and frequent practice drills are conducted. The U.S. Minerals Management Service and other government agencies conduct regular and unannounced inspections. Automatic fail-safe devices are installed in the wells below sea level, and master control switches are located at various stations on the platforms and, in some cases, at the onshore facilities. Teams of experts regularly monitor the equipment and the flow of oil and gas. Should an oil spill occur, however, oil spill cooperative

groups, such as Clean Seas in Santa Barbara, are primed to go into action. Clean Seas, with a core group of full-time professionals, is organized like a volunteer fire department. Clean Seas is ready twenty-four hours a day to assist in or perform cleanup operations. Oil companies operating in the area finance Clean Seas and provide it with technical assistance.

Once the oil is brought up through wells to the platform, the oil and gas must be separated; before the oil can be refined, it must be processed—or "cleaned" either on the platform or as soon as it reaches the shore. Some of the larger platforms have sophisticated processing equipment onboard. Pipelines are the most prevalent way of transporting oil and gas from platform to shore.

Onshore support facilities processing plants and storage terminals—need not be blights on the landscape. The oil industry has a long history and excellent track record of finding creative ways to produce and process

". . . the issue of offshore leasing is much broader than a mere conflict between coastal residents and the oil industry."

oil in densely populated urban environments unobtrusively. Soundproofed, aesthetically designed derricks, located right next to luxury office towers, pump hundreds of barrels of oil a day, unnoticed, along Avenue of the Stars and other streets in Los Angeles's prestigious Century City. Shoppers stroll leisurely through the Beverly Center shopping complex in Beverly Hills unaware that the enclosed structure sits atop active oil wells. Dozens of active wells are scattered throughout downtown Los Angeles, invisible to the untrained eye.

Long Beach's oil islands are part of one of the most productive oil fields in the United States, even though they don't look like it. They look like clusters of high-rise hotels in a tropical island setting. The THUMS islands (an acronym derived from the names of the five oil companies involved: Texaco, Humble now Exxon, Union, Mobil, and Shell) are a prime example of the compatibility of oil operations with an aesthetically sensitive environment. The THUMS islands off the Long

Beach waterfront have won many awards, including the Outstanding Engineering Achievement Award from the National Society of Professional Engineers and an award for aesthetic contribution to the community from the Long Beach Beautiful Committee.

Chevron's onshore terminal facilities in Carpenteria sit unobtrusively behind Carpenteria City Hall, completely concealed from view. Onshore facilities don't have to be ugly. The oil industry has the ingenuity and has demonstrated the willingness and capability to make onshore facilities visually compatible and unobtrusive.

PUBLIC OPINION is not on the side of offshore opponents. A majority of residents in California believe offshore development is compatible with protection of the environment, according to most public opinion surveys. Opponents of offshore leasing, however, cite a recent Mervin Field poll which found that a majority of respondents were against drilling in state tidelands waters along the beaches. The Field poll did not address the question of development on the Outer Continental Shelf.

A recent poll by V. Lance Tarrance and Associates found that only thirty-seven percent of Californians surveyed oppose offshore exploration on the Outer Continental Shelf; fifty-six percent supported offshore development. The poll also showed that fifty-seven percent of Californians surveyed believe the oceans and beaches can be protected while development is taking place, and that fifty-four percent have a positive image of the offshore oil industry's safety record over the last decade.

"The oil industry has the ingenuity and has demonstrated the willingness and capability to make onshore facilities visually compatible and unobtrusive."

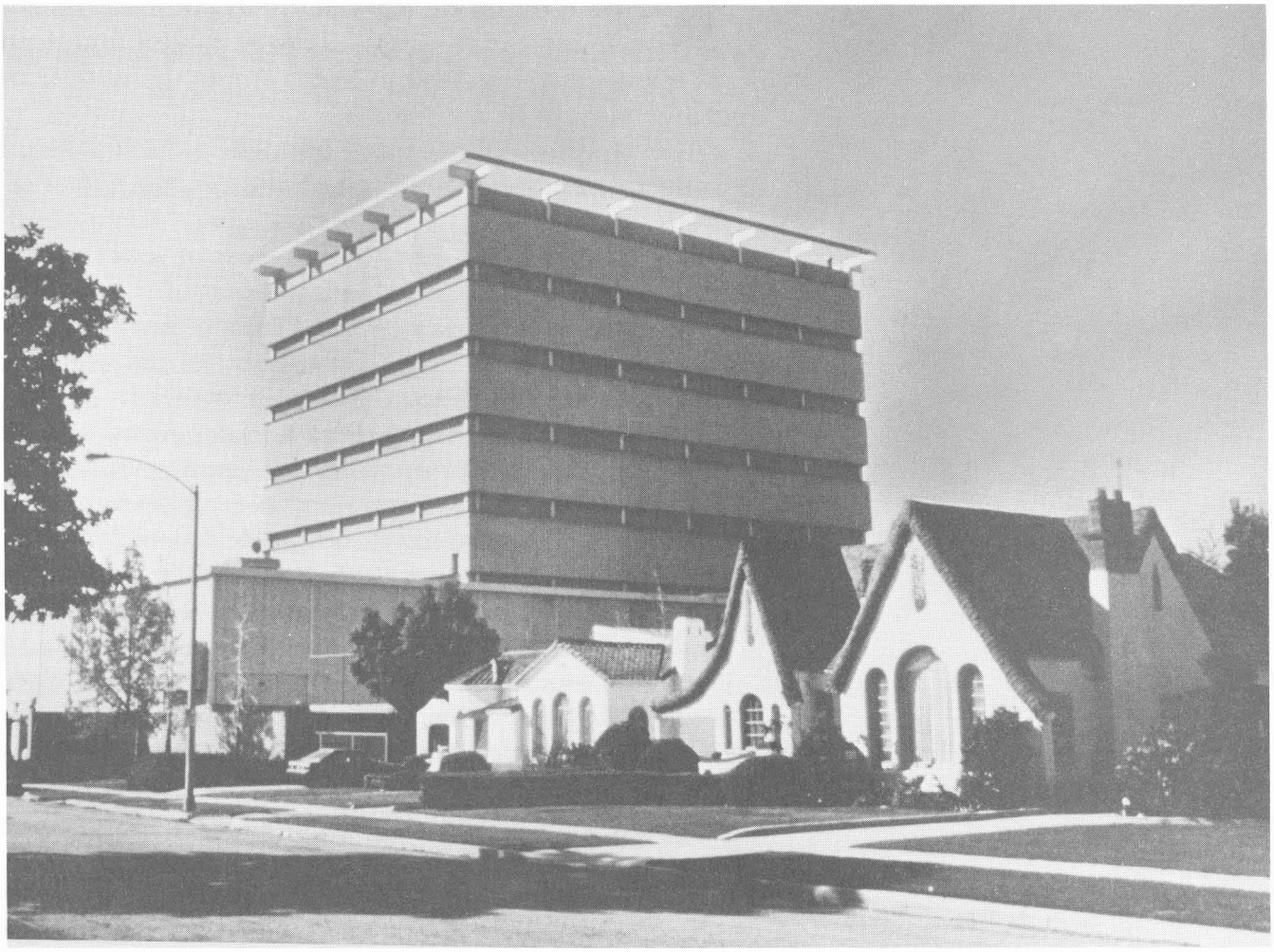
Even with documented public support for offshore development on the California Outer Continental Shelf, a few critics of Outer Continental Shelf production have successfully convinced a majority of both coastal and

inland congressmen to sacrifice the national interest for misdirected local concerns. The vast supply of oil and natural gas on California's Outer Continental Shelf belongs to all the people, and the issue of offshore leasing is much broader than a mere conflict between coastal residents and the oil industry.

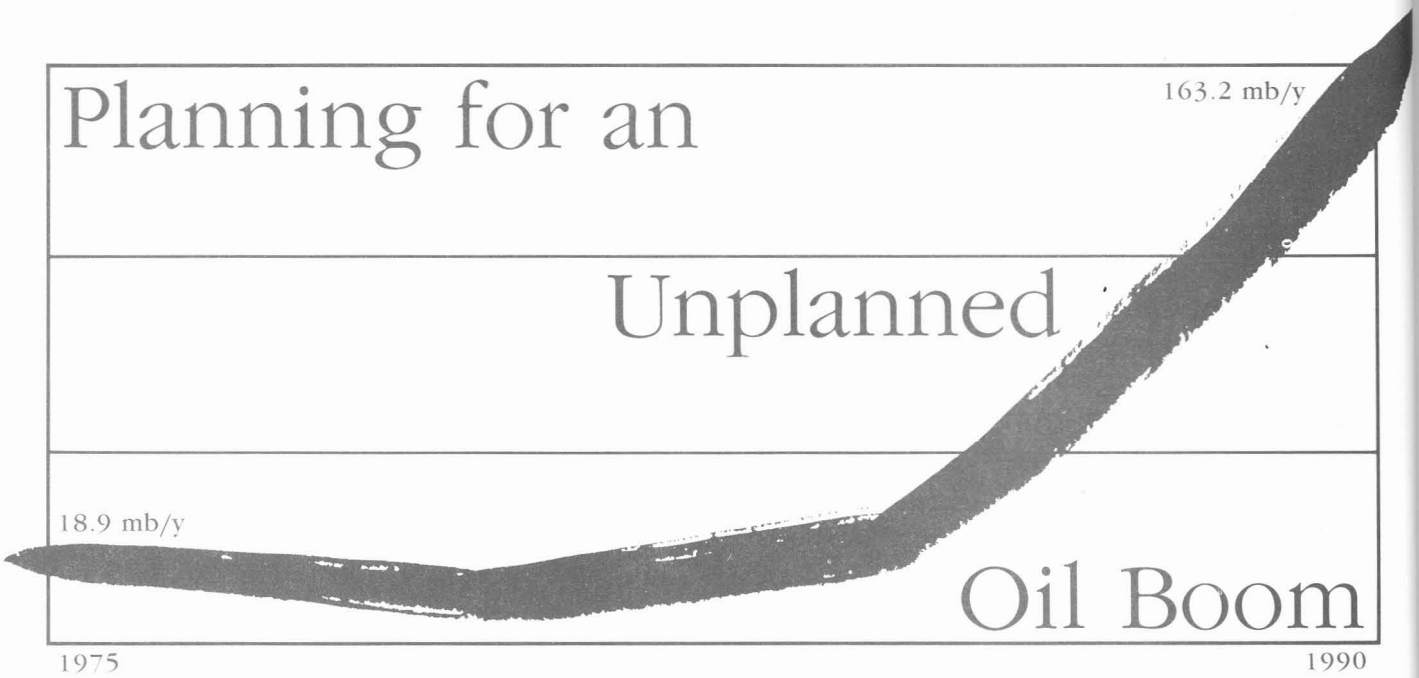
Many Californians believe the case is strong for eliminating moratoriums on offshore leasing on the Outer Continental Shelf. As Will Rogers once said: "Politicians, after all, are not over a year behind public opinion."

Arthur O. Spaulding is Vice President and General Manager of the Western Oil and Gas Association.

Chevron's Packard Drill Site, Los Angeles



Planning for an Unplanned Oil Boom



Offshore oil production in Santa Barbara Channel, in millions of barrels per year (mb/y)

by Robert Sollen

WHEN A SINGLE county is called on to accommodate most of the impacts of the biggest American oil boom since the Alaskan North Slope, the people in charge have to be innovators.

The task would be tough enough if Santa Barbara County had any funds for such an assignment, or if its south coast—where the oil pressure is—had an oil industry base to build on. Instead, most of its economy rests heavily on its natural setting, one of the world's most enticing recreation areas. Tourism, not heavy industry, is the boast and the business of the county's south coast facing the Santa Barbara Channel.

It is not that the county came inexperienced into its present confrontation with oil development. Santa Barbara city and county have been coping with the oil industry since before the turn of the century, and with offshore oil schemes since the very first years of this century. The difference now is only in magnitude, but what magnitude! During the *twenty-two years* between 1960 and 1982, about 375 million barrels of oil were produced from the Santa Barbara Channel. That much is expected to be produced in *two years* offshore Santa Barbara County between about 1990 and 1992, according to numbers provided by the oil industry. Even those figures now appear to be conservative.

The county expects production to peak at about 500,000 barrels a day, one third the peak production of

the North Slope and equal to the current production of Brazil, third largest oil producer in South America and 1,200 times the size of Santa Barbara County.

In 1982, when the county completed its local coastal plan which anticipated only a fraction of oil industry expansion—enormous discoveries were made off the county's coast. This time, however, they were not only in the Santa Barbara Channel to the south. Gigantic fields were found in the Santa Maria Basin, an offshore extension of the onshore fields that have been producing for many years at only moderate to low rates.

The county was not caught totally flat-footed, however. It had established a Department of Resource Management with current planning, comprehensive planning, and environmental review divisions. As the oil discovery news came in, a fourth branch was established—an energy division—to deal exclusively with the demands

"The county expects production to peak at about 500,000 barrels a day, one third the production of the North Slope and equal to the current production of Brazil, third largest oil producer in South America . . ."

of the oil industry for coastal resources. New oil discoveries came in rapid succession, and it became obvious that the original four-member energy division would be helpless confronting applications for permits for five, then eight, then a dozen enormous oil industrial projects. The problem was not only the great number and magnitude of the developments, but the county's century-old tradition of trying to keep its landscape looking nice. Perhaps nowhere are environmental and aesthetic requirements more stringent. The four-member energy division was quickly escalated to a staff of a dozen professionals, including an impressive number of PhDs.

Such an operation doesn't come cheap, and this year's budget tops $800,000. Yet the county doesn't appropriate a nickel for it. Nor do the state or federal governments. The county assesses the oil companies for the total cost of the division. Permit fees run from $10,000

to $40,000, and consulting firms charge $1 million to $3 million for environmental impact reports. There are also special reports—oil transportation policy studies, cumulative impact studies, tanker terminal siting studies, and others.

The oil companies pay the fees with little protest. There is no other way they can get their permits. The head of Resource Management says they are in fact grateful to the energy division for providing a "one-stop-shop" where many administrative details are handled. It minimizes chasing from one agency to another to get the paperwork done.

Most of the projects begin with production platforms in federal waters where the oil fields are. Then they span the state's three-mile offshore tidelands with pipelines, come ashore on the county's beaches, then reach out with buried oil and gas pipelines to processing plants, tank farms, and tanker-loading terminals. This means that the companies need permits from a tangle of agencies on many governmental levels. With impact reports of several volumes each costing a million dollars or more, it would be costly, time-consuming, and frustrating to require a separate report for each agency involved.

"The oil companies pay the fees with little protest. There is no other way they can get their permits."

Santa Barbara County devised a system that would eliminate this duplication and also protect the county's interests. For each project, it organizes a joint review panel, representing the county, state, and federal agencies involved. One report is prepared for all three governmental levels, and the panel conducts joint hearings and reviews the report for all the public agencies.

THE PREPARATORY work for permit reviews is an enormous task. The staff works for weeks or months with oil company specialists before even accepting a permit application to make sure it has all the information the decision-makers need. There is not much time for additional fact-finding after the permit is accepted. The state Permit Streamlining Act (AB 884) gives the

county only one year to act on a permit unless the applicant agrees to a limited time extension.

An oil company unfamiliar with Santa Barbara County's approach to environmental issues is slightly traumatized by its first experience. For each project, the county demands hundreds of conditions to assure a clean and safe operation, and one that will not break the county financially or interfere with the conveniences and necessities of its residents. The potential impacts of the projects are enormous, and stringent conditions are required to reduce them to an acceptable level.

Air pollution is the most feared of the many feared consequences. It comes from many sources: tanker transportation, tanker loading, storage tanks, helicopters, electric generators, crew and supply boats, truck traffic, oil and gas processing plants, platform machinery, natural gas flaring, and many other sources.

By imposing effective controls where it has authority, the county is making acceptable progress toward meeting federal Clean Air Act standards. But the federal government has less stringent air pollution standards on offshore platforms than the state or county believe should be required. These sources pollute air onshore, and the county contends that it can require offsets onshore to compensate for pollution coming from beyond its area of control. The oil companies argue that this is an illegal extension of county authority. The issue has not been resolved.

Another major issue is that of socio-economic impacts: how oil development will affect population, housing, public services, the tax base. In the county's first three impact reports, the estimated socio-economic impacts varied enormously. There was no agreement on how many workers would come from outside and need new homes; how much public revenue the projects would generate, and when; how many new children would have to be accommodated in local schools; the increased cost of maintaining roads, etc.

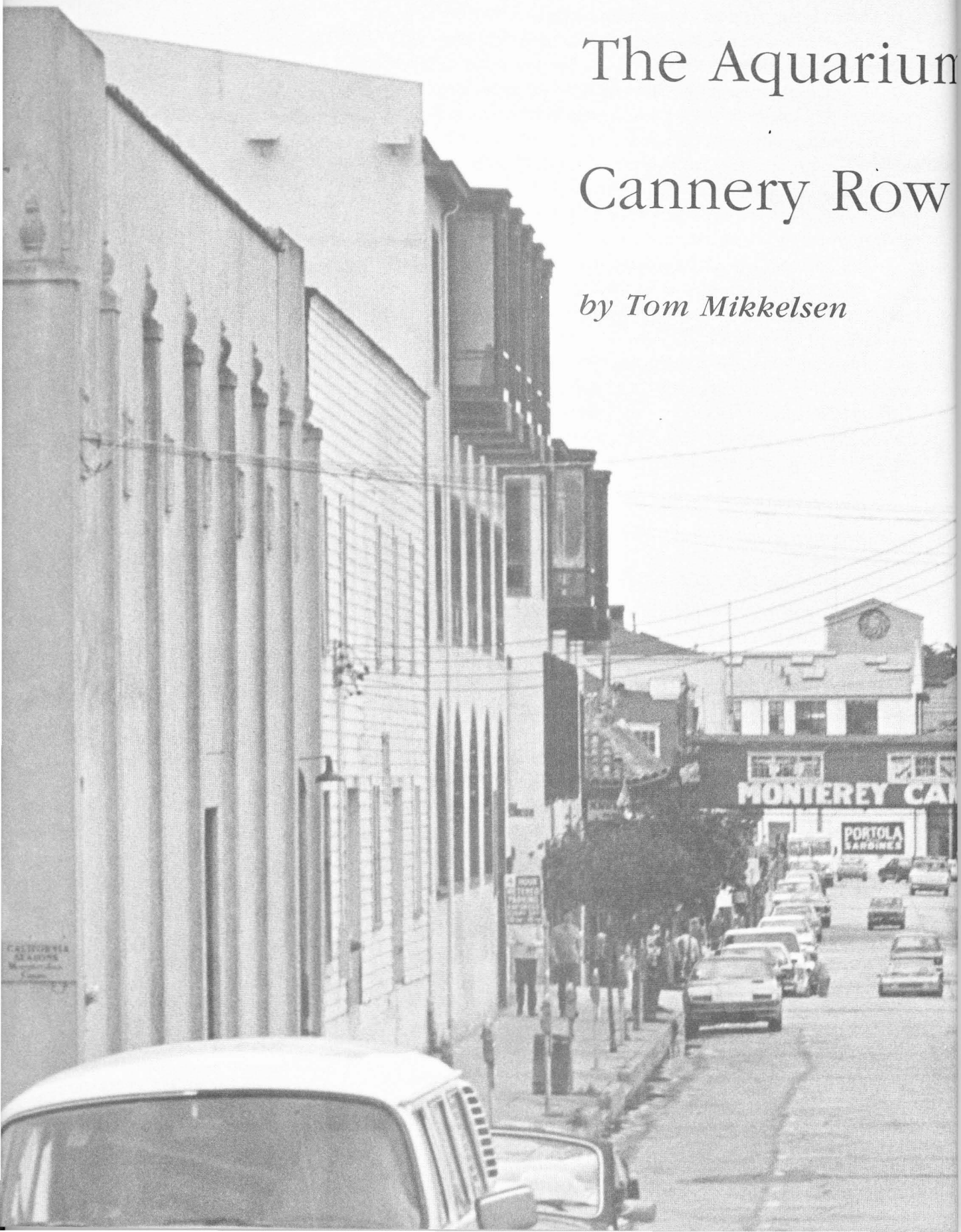
It was generally agreed, however, that the new public costs would come due before the additional public revenue was available. So the county proposed a system of monitoring the public costs as they accrue, and billing the company whose project is responsible for the costs. The formula is exceedingly complex, but Exxon and Chevron, whose projects were the first to be processed, agreed to the system. Its success has yet to be determined. □

Robert Sollen is a staff writer for the *Santa Barbara News-Press*. He has covered environmental and energy issues since 1968, the year before the Santa Barbara Channel oil spill.

The Aquarium

Cannery Row

by Tom Mikkelsen



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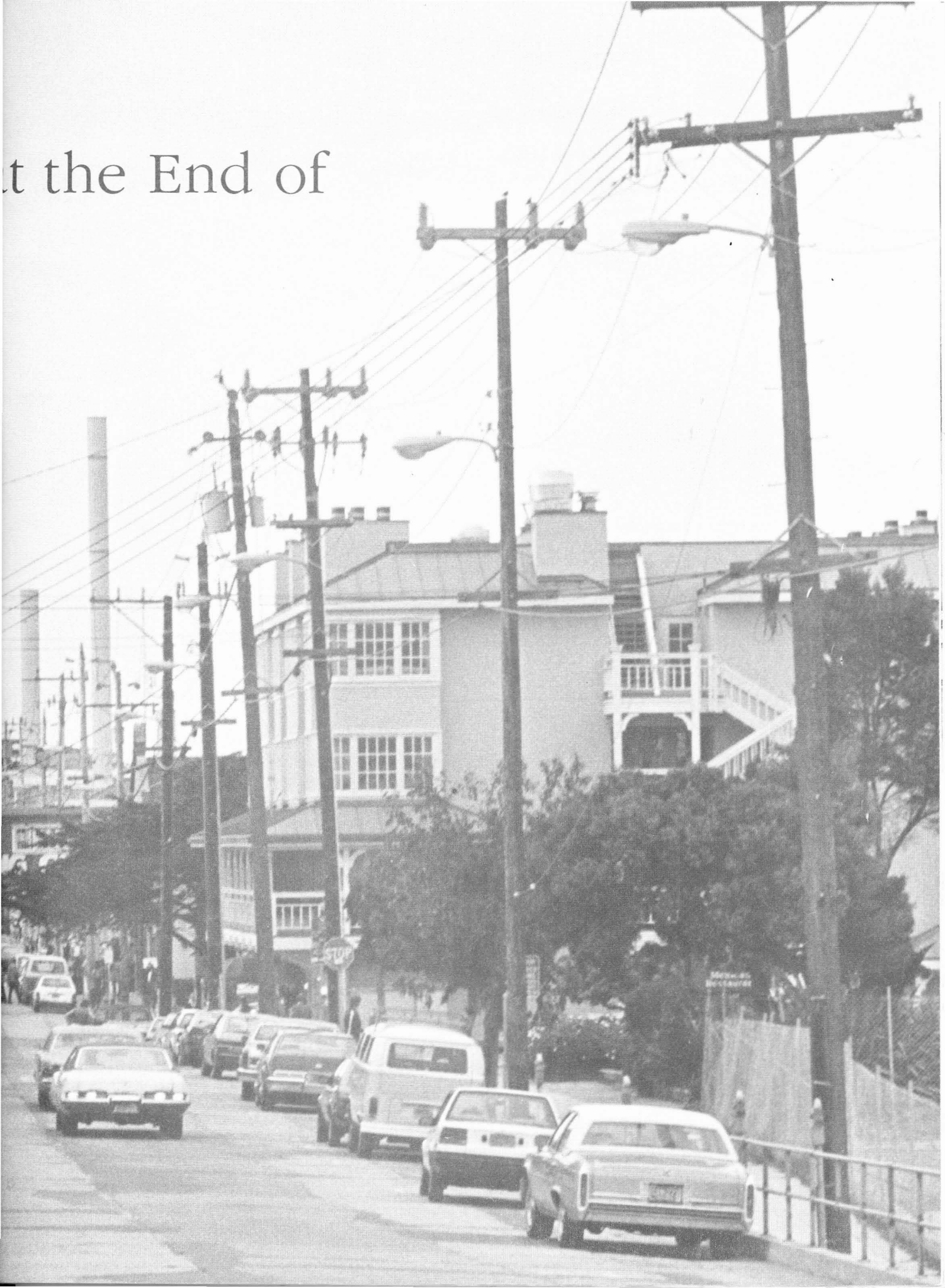


1947

SINCE 1921 THE tall, silver smokestacks of the Hovden Cannery anchored the long vista down narrow Ocean View Avenue. When the cannery closed its doors in 1973, the stacks remained, a landmark of the bustling days of the sardine fleet, the brief era forever etched into our cultural memory by Steinbeck's Cannery Row. Today, visitors hoping to relive that era—"a poem, a stink, a grating noise"—will be disappointed. Most of the canneries have burned down; the tightly packed clutter of Steinbeck's street has given way to open views of tourist shops scattered between large vacant lots. A bust of Steinbeck presides over a parking lot, and a seafood newburg restaurant announces that meals from the novel were eaten here.

The street was not even officially named Cannery Row until 1953, when the canneries were already disappearing and the city fathers were trying to salvage a dying tradition. Ever since, people have been talking about "saving" Cannery Row. For twelve years planners,

1985

developers, and citizens have fought over how to preserve its heritage. Yet the real question is not how to save Cannery Row, which has long since vanished; the question is how to reshape it into a place that makes more of its heritage than phony tourist bait.

This is a question for visionaries, not planners, and fortunately for Cannery Row an extraordinary group of creative minds took over the old Hovden Cannery and transformed its smokestacks into the symbol of a magnificent new aquarium. They took the row's conflicting traditions of sardine canning and marine research and wove them into a highly original and coherent complex. While it has been hailed nationwide, the local reaction has strangely been ambivalent; some fear that it is too successful. The aquarium's crowds do indeed present "planning problems," but the aquarium itself represents the only real hope of turning Cannery Row from a wax museum into a significant cultural enterprise.

By 1940 Italians predominated (above) where once a Chinese fishing village had stood (below).

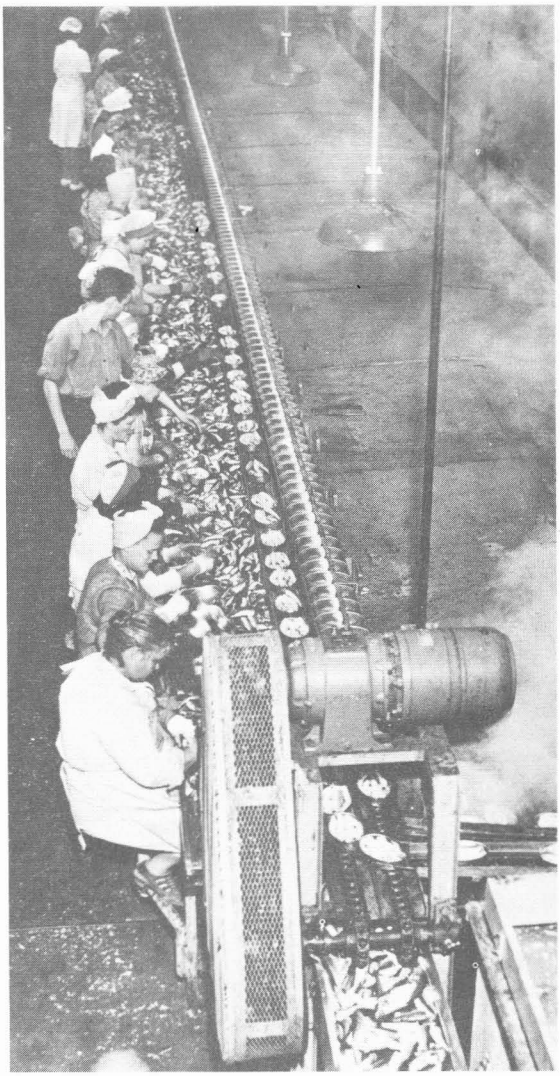
FORMERLY THE site of a Costonoan Indian village dating to 2000 B.C., the southern shore of Monterey Bay was settled in the nineteenth century by Chinese fishermen, who cured and exported one hundred tons of dried fish annually. In the first decade of the twentieth century, an enormous fire—set perhaps by hostile white neighbors—destroyed the village and expelled the Chinese. This paved the way for a new generation of fish processors, coming from Norway and Sicily, who began building sardine canneries in 1902. The new industry started slowly but received a boost during the meat shortages of World War I. Cannery followed cannery, crowding out even one of Monterey's most opulent mansions, until twenty-three canneries occupied slightly less than one mile of shoreline.

At the same time, curiously enough, the area around Cannery Row became an important center of marine biological research. Hopkins Marine Station, located just beyond the far end of Cannery Row, was established at the turn of the century; in 1923, Edward "Doc"

Ricketts founded the Pacific Biological Laboratories, from which he explored intertidal marine life and produced the pioneer study, Between Pacific Tides. The tiny laboratory, squashed between two canneries, formed an important setting in Steinbeck's novels.

In the mid-1940s, with the canneries at their peak, the sardine industry fell into a permanent decline. The sardines had disappeared, gone forever into cans, fertilizer, and gunpowder. The exuberant expansion of the 1950s bypassed Cannery Row, as cannery after cannery closed its doors. The once profitable plants were sold off, stripped of their equipment, and abandoned. A few of the deserted buildings were quietly reoccupied by artists needing space, low rent, and refuge from the conventional life of the Monterey peninsula. Other buildings began to perish in mysterious fires that would continue well into the 1970s.

The "rediscovery" of Cannery Row started in the early 1960s, when several restaurants opened to cater to tourists. The row was changing again, and over the next ten years the pace would quicken. The artists, like the Chinese, were ousted to make way for commercial development. Several of the remaining old cannery buildings were converted into theaters, shops, and offices. By 1970 hotels were being planned, and scuba divers, in ever-increasing numbers, were exploring the waters off Cannery Row. Problems arose. Parking was scarce, and there were no facilities for the divers to change gear. Merchants didn't like the divers using up their parking



Sardine canning (above) was big business until the late 1940s; a fire in 1951 (left) signalled the industry's decline.

or loitering near their shops. In a much-publicized incident in 1972, some local property owners placed barbed wire across the entrances to MacAbee Beach to keep divers away. The conflict over "territory" had taken on serious proportions. Although divers and merchants, on the surface at least, do not represent mutually exclusive groups of people, their conflict underscored a much deeper problem, a problem that would remain. What was the future of Cannery Row? Who would inherit its shoreline and streets? Would the next generation carry the mantle of Steinbeck and Ricketts, or would they give way to commercial interests fishing for tourists?

WITH SOME SENSE of urgency, the city of Monterey began work on a master plan for Cannery Row. The plan was adopted in 1973, the year that saw the closing of the row's last operating cannery, Hovden's. Supported vigorously by local merchants, the plan attempted to preserve the "unique" character of the row while simultaneously allowing its conversion to commercial and tourist-related facilities.

Shortly before, California voters had passed Proposition 20 (the California Coastal Zone Conservation Act of 1972), which created a temporary coastal commission. In the four years before its permanent establishment in 1977, the commission held numerous hearings on the 1973 master plan. The commission questioned the intensity of development proposed by the plan and the lack of specific provisions for parking and public access to the shoreline. Meanwhile the city took some limited steps to address these problems. The divers were provided a stairway at San Carlos Beach, and a parking district was formed to alleviate parking problems. Still, pressure for new commercial development remained intense, old buildings deteriorated further, and several more canneries burned down.

On January 1, 1977, the Coastal Act of 1976 became law. Scarcely had the ink on the new law dried than the commission was besieged with requests for new development on Cannery Row. Within months the regional and state commissions had to decide on permits for two hotels, two motels, and three restaurants. For various reasons, the state commission delayed the development proposals; then, much to the disappointment of merchants and developers in Cannery Row, the commission

found the 1973 plan to be inconsistent with the new law.

In reviewing the plan, the commission struggled most with a policy that stated:

> Recognize that some degree of congestion is desirable on Cannery Row Street to enhance the excitement and intensity of experience within the area.

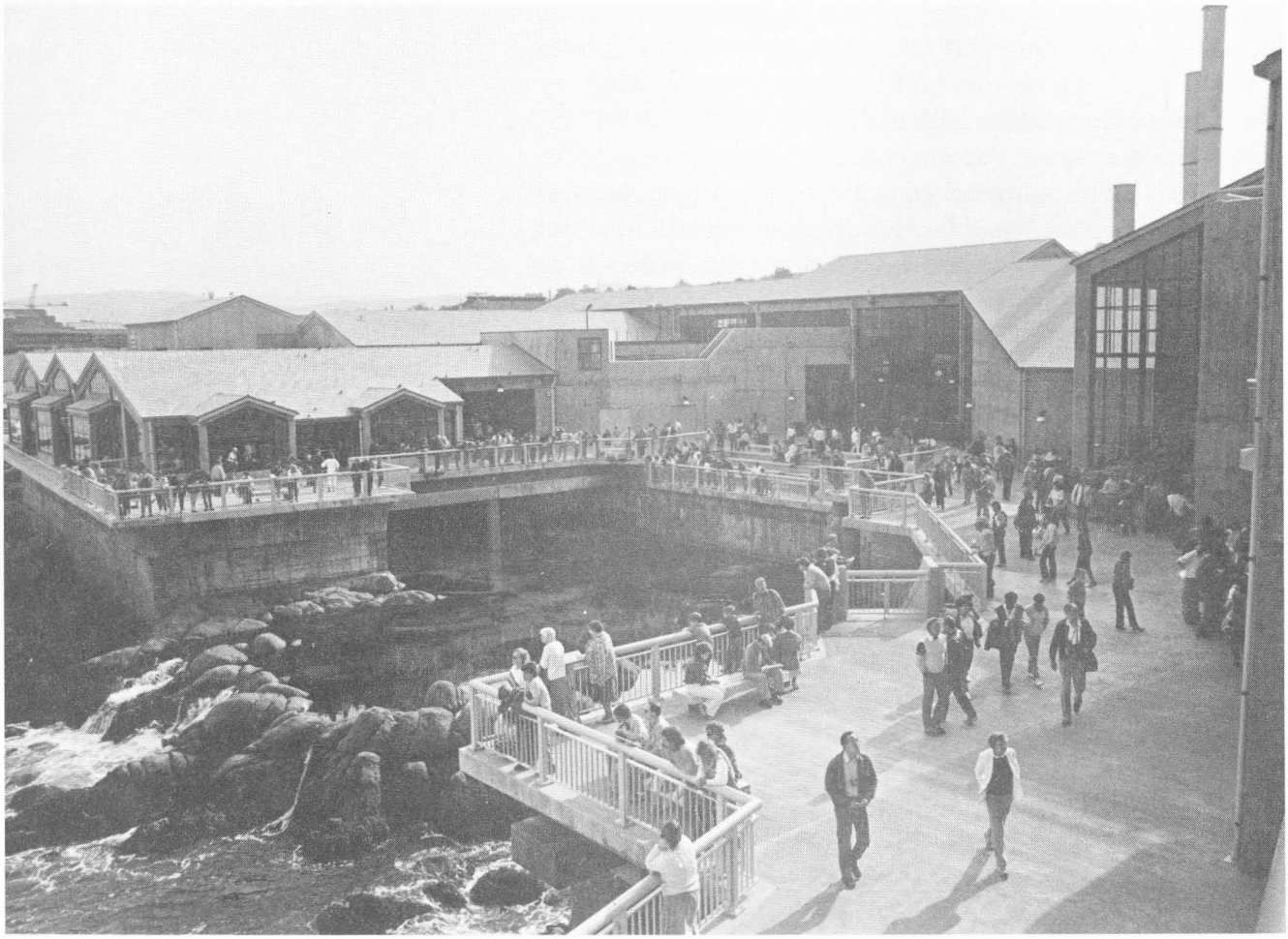
Here, "congestion" was a euphemism for intense development, which the commission knew would bring tremendous problems. Yet, in some sense, the policy was right. The "authentic" Cannery Row meant congestion: canneries had blocked ocean views and had left little room for parked cars or beach strollers. The commission had to juggle conflicting goals. It wanted to restore the look and feel of Steinbeck's cluttered street, yet fulfill its mandates to open up public views, provide access to the shore, and accomodate traffic and parking.

Finally, in 1980, amidst a great deal of public controversy and the threat of legislative intervention, the commission approved a local coastal program (LCP) for Cannery Row. The LCP was completed after nearly twenty public hearings and untold hours of work by planners and citizens advisory committees. This plan, which now governs the area, strikes a tenuous compromise between authentic congestion and coastal protection. The plan allows a tremendous expansion of hotel and motel construction, but offers strong policies to protect marine habitat and to provide physical access to the shore. While virtually the entire length of Cannery Row would be developed, the plan requires lateral shoreline access along the backs of structures and public plazas and view points between structures. The plan specifically finds that " . . . Cannery Row is a unique coastal community with cultural and historic significance and a scale and character not found elsewhere along the California coast," and provides twenty-two pages of design guidelines to shape its future.

"Some people believe that the LCP saved Cannery Row," states Les Strnad, Chief of Permits for the Coastal Commission's Central Coast District. "The LCP preserves the resources of Cannery Row but allows for its conversion to new, nonindustrial uses. The new plan allows more intense development than the plan of 1973 but there was a lot of pressure to build out the row. Eventually the commission went along with it."

On paper, the plan is adequate. It substantially improves the prospects for shoreline access and for protection of marine resources. But the plan defers some matters—such as parking solutions—until zoning ordinances are prepared; the city of Monterey has yet to adopt these implementing ordinances. Moreover, the plan also defers key decisions to a design review committee, which interprets the LCP's architectural policies on a case-by-case basis. Unlike the 1973 plan, which designated certain buildings (or their facades) to be preserved, the current plan makes no specific designations. Despite the pages of guidelines, the appearances of new buildings are left to the subjective decisions of committees and the uneven skills of designers.

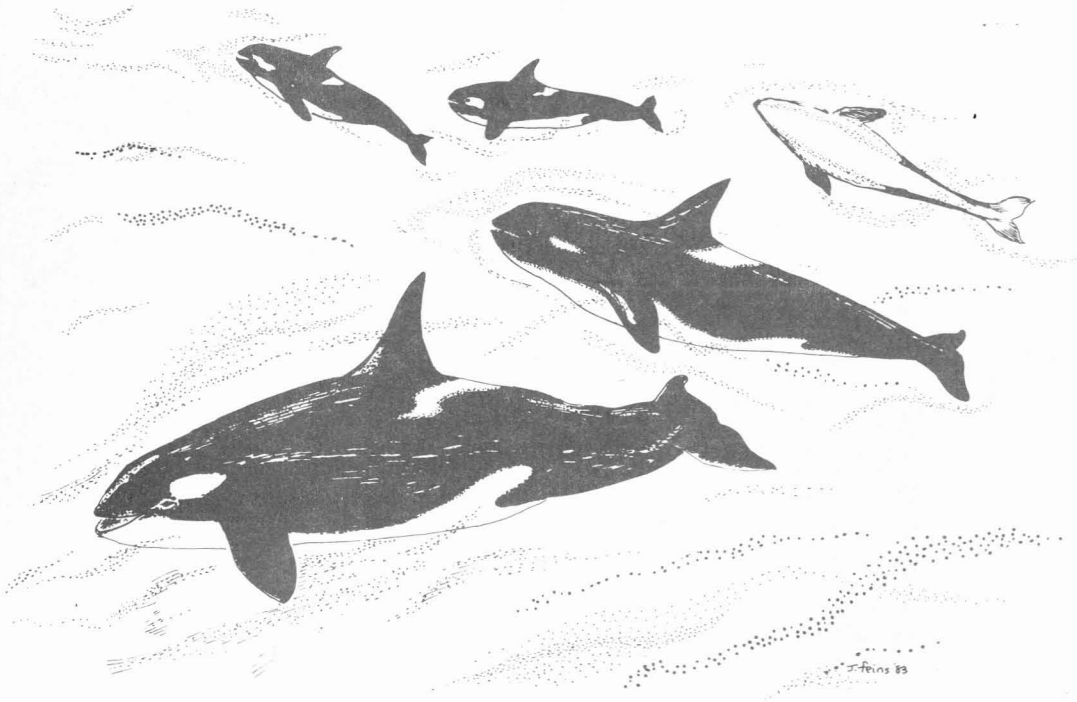
Plans, no matter how tough or specific, cannot enforce creativity. Yet that is what Cannery Row needed: a creative way to make use of its heritage. A dozen years of



planning yielded many benefits, but failed to solve the central problem. In a much shorter time, the new owners of Hovden Cannery presented a far more powerful vision of Cannery Row's future than any LCP could have offered.

PREPARATIONS FOR the aquarium began, in earnest, late in 1978. A financial analysis, funded by the Packard Foundation, determined that the old cannery site and the Monterey Bay region could support an aquarium. The nonprofit Monterey Bay Aquarium Foundation was formed, engineers and architects were hired, and the concept was refined. Rather than compete with tropical or exotic aquariums, this aquarium would focus on habitats just beyond its doorstep in Monterey Bay, a body of water hiding a submarine canyon deeper than the Grand Canyon. "The aquarium was designed literally from the inside out," states Linda Rhodes, co-architect and project manager for the aquarium. "The basic program decisions were made early, before designs were prepared, and they have been key to the success of the aquarium. A site was chosen (the Old Hovden Cannery), and it was decided that the aquarium would be regional in scope, dedicated to the resources of Monterey Bay and the Central Coast area. So the facility had to interact with its site on the shoreline, and with the bay itself."

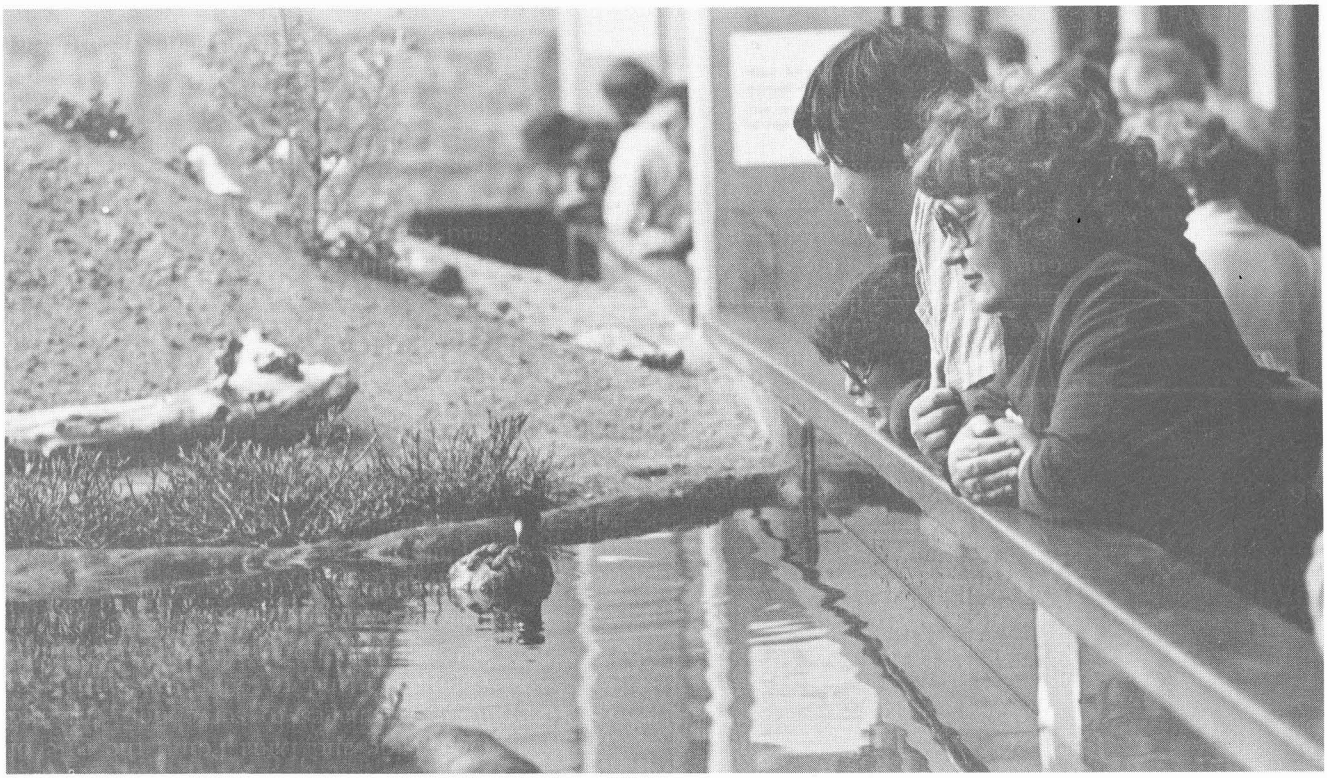
Originally the foundation intended to build the new aquarium within the walls of Hovden Cannery. However, it proved infeasible to preserve even the shell of the old buildings, so designs for a new building patterned after the old cannery were prepared by Rhodes and the firm of Esherick, Homsey, Dodge, and Davis. The architects wanted to avoid the "black box" type of design prevalent in most aquariums—the regimentation of tank after tank lining dark corridors that inhibited people from moving about freely as their interests would dictate. The cavernous interior space of the old cannery lent itself to bright, open, interconnected galleries, but there were many obstacles to overcome, such as natural glare. The architects also wanted to connect the interior galleries with the ultimate exterior display—the bay itself. They conceived a series of balconies and plazas where visitors could step outside and gaze down into the sea; the artificial and the natural habitats would merge.



The Mammal Gallery

"A tremendous emphasis was placed on the uniqueness of the building and its site," stated Ms. Rhodes. "We wanted this to be a place unlike anywhere else."

With the help of $40 million from the Packard Foundation, the architects succeeded. The new building recreates the image and scale of the old Hovden Cannery. The original boilers and smokestacks have been preserved along with the general outline and massing of the old factory. But, rather than building over the water as its predecessor did, the new building pulls back, leaving a graceful plaza and walkway above the shoreline. The walkway surrounds and overlooks a huge outdoor tide pool, which invites and shelters natural intertidal life from the bay. From here, and from balconies on the upper stories, visitors have sweeping views of the shoreline and Monterey Bay beyond. The bay side of the new building is punctuated with windows that light the complex, multistory spaces inside. The entrance lobby leads into one of the most majestic spaces, the Mammal Gallery, where full-scale models of whales, dolphins, and seals hang suspended from the ceiling. These surround a large sea otter tank open to the sky. On the opposite side of the building, displays of all kinds



The model slough

simulate the different environments of the bay. There is, for example, a large-scale model of a salt marsh and slough (based on nearby Elkhorn Slough), complete with a wave-making machine and an aviary full of rare birds. From inside this exhibit, visitors can look out the windows at other shoreline birds, congregating naturally on the rocks below.

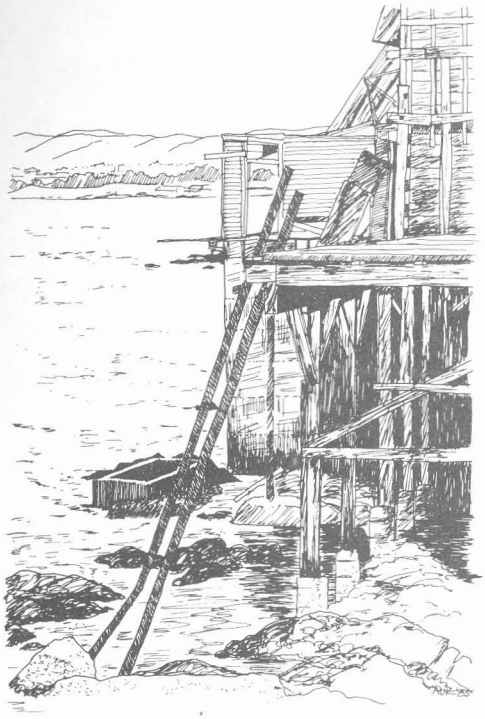
In the recesses of the building, huge dramatically-shaped tanks lit from above display the underwater habitats of the bay. One tank includes a section of pilings salvaged from the Monterey 2 Pier, barnacles and all; fish swim between the wharf pilings, deep reefs, and sandy bottoms. Saltwater is the lifeblood of this part of the aquarium. Up to 2100 gallons each minute must be drawn, circulated throughout the aquarium, and returned to the bay. The system, designed by Rutherford and Chekene, Consulting Engineers, is unique in its use of raw unfiltered seawater to provide nutrients for the aquarium's marine life. The water is filtered only during visiting hours to allow a clear view of the displays. On each display, the unfiltered water will cause new organisms to settle and grow over time, adding depth and complexity to the exhibit.

The centerpiece of the aquarium is a three-story tank containing a living kelp forest. For the first time in any aquarium, a natural kelp forest grows, swaying back and forth in the constant pulse of water surging in the tank. Just outside the aquarium, kelp plants seem to float on the surface of the bay; few would imagine the scene revealed by the kelp tank, a world of underwater trees where fish swim and hide in the leaves. Here, design and engineering merge into art and triumph to create a kind of altar to Monterey Bay, an emotional experience so strong that visitors simply stop and stare, transfixed by the world undersea.

The product of great design and great work, the aquarium is a splendid interplay of human emotion, engineering, art, science, and site. Within a highly controlled environment, a natural living world is honestly

and respectfully displayed in a building that is faithful to its architectural heritage. The structure is also a stunning example of how to build on the shoreline. Combining coastal-dependent functions with public access to the shoreline and with respect for the marine environment, the aquarium embodies on virtually every level the policies of the Coastal Act of 1976.

Conforming also to the 1980 Cannery Row plan, the aquarium received relatively easy approval from the city of Monterey and the Coastal Commission. Yet, when its doors opened on October 20, 1984, controversy erupted over issues that belied twelve years of public planning. Ironically, a development that fully complied with state and local laws was criticized for its overwhelming success.

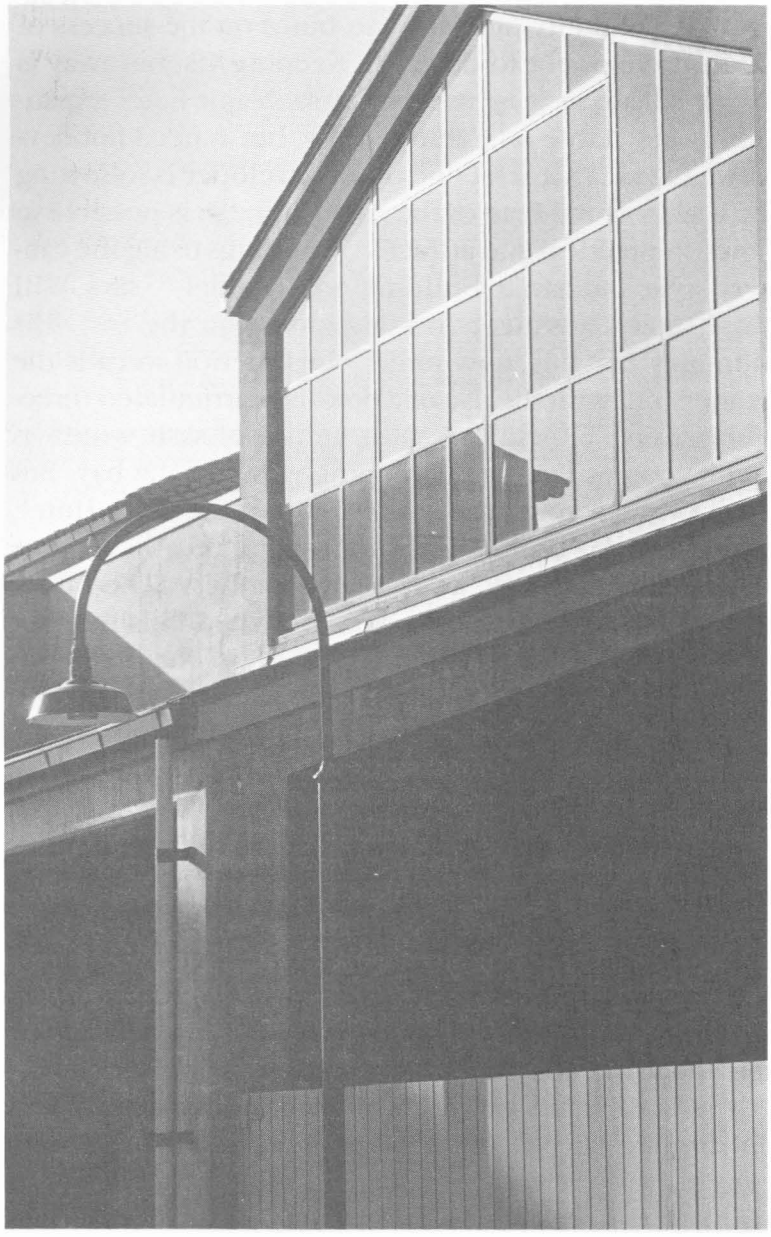


A REGIONAL AQUARIUM, of national if not worldwide significance, opened in a small town—a town in transition, caught unprepared. Tens of thousands of people flocked into Monterey the first weekend. An astounded mayor said that no one had expected the traffic and parking problems that would result. But Julie Packard, executive director of the aquarium, contended that the city knew of the problems for years and should have done something about them already. Indeed, the problem of congestion had been identified as early as twelve years before in the 1973 master plan and had been reiterated in the 1980 LCP. The LCP specifically requested the city to take steps to prepare for coming problems of parking and circulation.

Instead, the city took a "wait and see" attitude, despite the fact that, two years before the aquarium opened, congestion was much on everyone's mind. In 1982, a new mayor and city council were elected on a strong no-growth platform. The new city government set a moratorium on the approval of new hotels, but not before over 1100 new units had already been approved, 769 units on Cannery Row alone. Another 750 hotel units could be built along the row if the moratorium is lifted. The problems created by this commercial development might dwarf those caused by the aquarium.

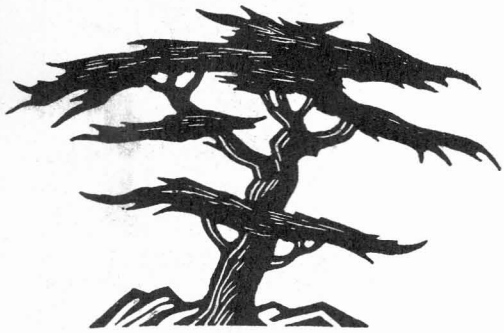
On January 8, 1985, the city reopened hearings on the aquarium's use permit. City officials heard the same local merchants who once argued that the state's coastal policies restricted growth and kept the tourists away now claim that the crush of visitors to the aquarium blocked their doors and hurt their businesses! A city official testified that it would be another three years before a parking structure could be opened on city-owned land near the aquarium. And, in a move reminiscent of the attempts to keep divers off MacAbee Beach, the city council voted to explore the possibility of limiting attendance to the aquarium.

Fortunately, more constructive proposals are also being discussed. The Monterey Bay Aquarium has begun using advance ticket sales to minimize lines and may contribute to alternative transit systems. The State Coastal Conservancy has loaned $130,000 to the city to save the train tracks that run from Cannery Row to the Convention Center downtown, while the city evaluates proposals to develop a trolley system on the tracks and a shuttle bus for surface streets. These proposals could



help ease some of the worst difficulties, but they will not remove the problems caused by inadequate preparation for rapid development.

The city's policy of wait-and-see has manifestly failed. The city must now begin to take responsibility not only for the aquarium but for the commercial development that is starting to crowd into the row despite the moratorium. There has never been a better opportunity to shape the future of Cannery Row, but time is running out.



. . . the people are a tide
That swells and in time will ebb, and all
Their works dissolve. Meanwhile the image
of the pristine beauty
Lives in the very grain of the granite,
Safe as the endless ocean that climbs our cliff."

—Robinson Jeffers
Carmel Point

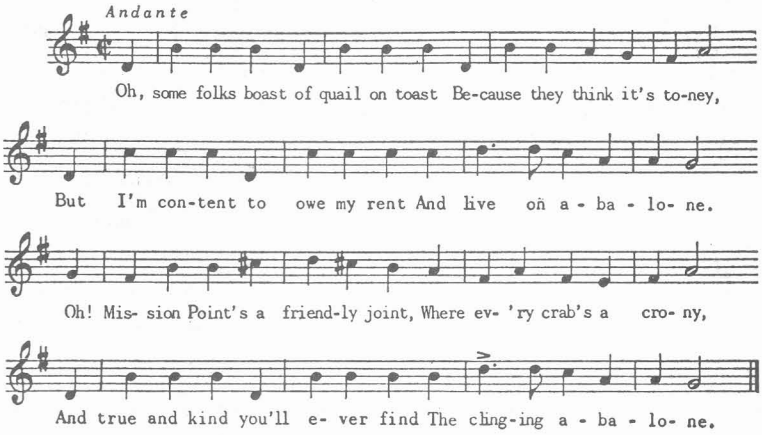
THE REAL challenge to developers, interested citizens, and city officials is to build on the success of the aquarium, not to defeat it. Keeping visitors away is as unrealistic as it is inappropriate. Major hotel expansion is inevitable on Cannery Row, but it need not devastate the area. At least one hotel developer is following the architectural lead of the aquarium. "It is possible to develop practical and attractive buildings using the cannery-style industrial building as a model," says Will Shaw, noted architect and landowner on the row. His Monterey Bay Inn, now under construction, recalls the cannery era with the use of a box-like, articulated three-story facade punctuated with industrial sash windows and balconies that give sweeping views of the bay. But just down the road, the massive Monterey Plaza Hotel, also under construction, is supposed to recall a Greene and Greene mansion rather than a cannery. The building will undoubtedly be handsome when finished, but its hipped roofs and dormer windows will be incongruous next to Shaw's buildings, the aquarium, and the surviving canneries. If Monterey Plaza represents a trend, Cannery Row might one day swim in a hodgepodge of conflicting architectural styles.

Even more fundamental than the issue of architectural style is the question of what kind of development Cannery Row should have. More hotels are coming, but the row need not—and should not—become exclusively commercial. The real question is whether visitors to the new hotels will be able to do anything besides see the aquarium and shop for bric-a-brac.

The aquarium's revival of interest in the natural and cultural resources of the area suggests many better possibilities for Cannery Row. Imagine a street where visitors could see a museum covering the native American, Spanish, and Chinese forefathers of the row; where they could rent diving gear to explore the kelp beds offshore; or where they could board glass-bottomed observation boats to view the waters in comfort. The entire area offshore could be made an underwater park, protected by the state or federal government. Onshore, if the trolley line were built, automobile traffic could be rerouted to back streets so that pedestrians could explore the row freely in a network of pathways, plazas, and public beaches. All of these ideas are feasible, but none of them would have been conceivable without the example of those who built the aquarium. Their faith in the future deserves our reply. □

Tom Mikkelsen lives in Albany, CA.

ABALONE SONG



Oh! some folks boast of quail on toast
  Because they think it's tony,
But I'm content to owe my rent
  And live on abalone.
Oh! Mission Point's a friendly joint,
  Where ev'ry crab's a crony,
And true and kind you'll ever find
  The clinging abalone.

He wanders free beside the sea,
  Where'er the coast is stony;
He flaps his wings and madly sings—
  The plaintive abalone.
By Carmel Bay, the people say,
  We feed the lazzaroni
On Boston beans and fresh sardines,
  And toothsome abalone.

Some live on hope, and some on dope
  And some on alimony;
But my tom-cat, he lives on fat
  And tender abalone.
Oh! some drink rain and some champagne,
  Or brandy by the pony;
But I will try a little rye
  With a dash of abalone.

Oh! some like jam, and some like ham,
  And some like macaroni;
But bring me in a pail of gin
  And a tub of abalone.
He hides in caves beneath the waves,—
  His ancient patrimony;
And so 'tis shown that faith alone
  Reveals the abalone.

The more we take, the more they make
  In deep-sea matrimony;
Race suicide cannot betide
  The fertile abalone.
I telegraph my better half
  By Morse or by Marconi;
But if the need arise for speed,
  I send an abalone.

Attributed to George Sterling, Jack London, Ambrose Bierce, and Gelett Burgess. Music by Sterling Sherwin. Collected by the Works Progress Administration, History of Music Project.

BOOK REVIEWS

The Hazards of New Fortune

Sea Cliffs, Beaches, and Coastal Valleys of San Diego County: Some Amazing Histories and Some Horrifying Implications. Gerald G. Kuhn and Francis P. Shepard. University of California Press, 1984. $22.50

Dr. Francis Shepard is a retired professor of submarine geology at Scripps Institution of Oceanography, and is often considered to have created the field. Gerry Kuhn is a staff marine geologist at Scripps, and is considered one of the rising figures in the field. Kuhn's unorthodox research techniques and his willingness to be quoted by reporters have made him a controversial figure in San Diego's academic and political communities. San Diego County has a conservative, pro-growth outlook, and critics like Kuhn and Shepard are not suffered lightly.

In their recent book, Kuhn and Shepard document their alarming view of erosion in San Diego County's coastal bluffs and river valleys for a wider audience than generally debates geologic stability issues. The authors use widely accepted techniques of photo-interpretation—and less accepted techniques involving analysis of tree rings, historical surveys, newspaper accounts, and records of volcanic activity—to argue that the climate of southern California has been unusually benign during the past forty years. The authors contrast recent climatic conditions with the harsh storms of the nineteenth century, and they conclude that " . . . a recurrence of these [historic] conditions in the future would be disastrous to the economy of southern California coastal valleys and lowlands and, in fact, to the life of our community." This is a harsh prediction for a county that advertises its climate widely and is rapidly developing its

coastal bluffs and valleys. The book suggests that, as southern California's Golden Coast armors itself to protect houses from waves, we will all suffer from a lack of foresight.

The book succeeds well in establishing for a general audience how little we knew about coastal erosion when development began in San Diego County. The photographic evidence presents a dramatic picture of shoreline processes easily understood by every reader. The analysis of physical processes in the book is also compelling, as the various causes of erosion are examined. The authors' conclusions on the significance of volcanic phenomena in storm behavior are certain to be controversial and can be criticized as relying largely on anecdotal evidence. However, the authors drive home the main point that erosion occurs in episodic events, not easily understood through analysis of normal conditions. This in turn suggests that a separate analysis of so-called "anomalous" erosion events—such as unusual storms—is essential to understand and deal with shoreline erosion.

Researchers have advanced the study of anomalous weather events by embracing new and highly accurate measuring techniques such as remote sensing. Unfortunately, the accuracy of these techniques creates a véritable tyranny of technology. Recent scientific publications on the effects of El Niño show that the new technology is allowing us to investigate climate more precisely and document the various causes of changes in the weather. However, our understanding is recent, and the period of accurate records is brief. One way to

project anomalous events such as storms is to extrapolate from the accurate information we do have about the last ten to twenty-five years. This technique is highly popular among politicians and developers in San Diego County because it has predicted fairly moderate storms and allowed substantial development of blufftops and river valleys.

The Kuhn and Shepard appraoch has been to investigate much older data in newspaper and weather records of the past century, which show dramatic storm events such as the "Noachian Deluge" of 1862 and the stormy period between 1884 and 1891. Although this technique can also be criticized for the anecdotal nature of some of the accounts, it paints a dramatically different picture from that suggested by extrapolations on more recent data. This book will not end the debate between the two sides, since the economic stakes of hazard prediction and regulation are high. As in most things, the truth may well lie somewhere in between, but the vast discrepancy between the two conclusions should suggest a need for more study or new analytical tools. Additional historical research both into San Diego County storms and into the effects of volcanic phenomena could significantly improve our understanding of erosion, and the public will have been well served by the controversy generated.

Like many other popular books on technical subjects, this book suffers from the compromises made to seek a wider audience yet retain enough technical information to establish credibility. Although the authors present a strong case for the climatic effects of El Chichon in 1982, the same cannot be said about other volcanic events. Similarly, there is relatively little about the El Niño of 1982-83 and why it was so much stronger than other El Niños that seem to recur about every five years. These are fairly minor quibbles, however, as the book is worth its price simply for the historical photo record.

—Jim McGrath

Maritime Picture Book

International Port of Call: An Illustrated Maritime History of the Golden Gate. Robert J. Schwendinger. Windsor Publications, 1984. $22.95

Maritime history is a complicated subject: it deals not only with the kinds of ships that sailed and why they sailed, but also with the influences those sea voyages had on the mainland. Obviously the subject can quickly get out of hand. The history of sea exploration covers the white man's discovery of this country, and the history of sea trade touches in many different ways some of the major upheavals of our past.

Given 100 pages, most of them filled with illustrations, Schwendinger's maritime history of San Francisco Bay can only scratch the surface. The book claims to be nothing more than a survey, and in that capacity it succeeds reasonably well. In clear, lively prose, Schwendinger outlines major trends in the types of ships calling at port, the commerce they engaged in, and the immigration they brought.

The book is designed as coffee-table material, so that on any randomly opened page the reader will find interesting statistics, anecdotes, and illustrations. The author has especially interesting passages on the whaling industry and on the Chinese presence in the area. He describes the slave trade in "coolies," the efforts of Chinese fishermen to make a living despite hostile legislation, and the huge corps of Chinese sailors working before 1915, when the Seaman's Act put them out of business.

The section on twentieth century history is far too brief, avoiding almost entirely, for example, the huge impacts which the World War II shipbuilding industry had on the population and development of the Bay Area. Likewise, the author avoids mentioning the ascendancy of Oakland's port in the 1960s and '70s and the corresponding decline of the port of San Francisco. Schwendinger would have us believe that the bay's ports complement each other rather

than compete.

Unfortunately, the book is marred by a distasteful appendix that profiles some of the maritime companies which currently operate in the area. Called "Partners in Progress," this appendix is nothing but a dressed-up advertisement for companies that helped pay the costs of publication. Surely the publishing industry is not so desperate that it must resort to this kind of sponsorship; if the industry is that desperate, straight advertisements would be preferable to the phony histories found in "Partners in Progress."

—*Kirk Savage*

Sinister or Outrageous

The Politics of California Coastal Legislation: The Crucial Year, 1976. Peverill Squire and Stanley Scott. Institute of Governmental Studies, University of California, Berkeley, 1984. $11.00

Peverill Squire and Stanley Scott very aptly state: "There are in fact very few monumental bills . . . But the 1976 coastal act was a landmark bill and an exception to the rule." In turn, few legislative efforts have been accompanied by the depth of research and thoughtfulness that characterize the Squire and Scott study. Their study is remarkable not only for the careful historical chronicling of the events surrounding the passage of the law but also for their efforts to analyze and interpret the interaction of political forces and individual personalities which ultimately shaped the Coastal Act.

As a participant in the legislative process and one who reviewed the authors' meticulous research first-hand, I can assure that their historical account is an accurate depiction of a very complex set of events. Their interpretation of these events is inherently more controversial, however, and it deserves special consideration and comment.

The authors oversimplify when describing the conflict between coastal advocates and Sacramento professionals over policy specificity. They describe it as a conflict between idealists and realists when, in fact, the "idealists" advocated specificity for very sound and practical reasons. Three years of experience interpreting the vague mandates of Proposition 20—the forerunner of the 1976 act—had shown the impossibility of local planning and permitting without specific policy guidance. Coastal Commissioner Richard Wilson once asked, "Is it better to be vague and sinister or precise and outrageous?" With legislation as inherently controversial as the Coastal Act, there simply was no practical way to avoid being outrageous.

The authors ascribe Machiavellian skill to the coastal advocates where pragmatism is more accurate. Their minute negotiations on the coastal zone boundary and on implementation procedures were not meant to divert attention from more controversial policies, but were part of a necessary process of incremental negotiation. Coastal advocates had to build agreements, one at a time, with disparate interest groups; each agreement helped to create momentum and to convince other interest groups that "stonewalling" the negotiations would fail.

Squire and Scott correctly stress the effectiveness of the League of California Cities in the negotiations. Advance preparation, a clear set of objectives, the delegation of authority to trusted negotiators to work within those objectives, and the selection of skilled staff (particularly Dave Beattie) combined to ensure the league's success.

However, the authors downplay the crucial roles played by some key legislators. Foremost is Leo McCarthy, then Speaker of the Assembly. Although he avoided the spotlight, McCarthy and Charles Warren (then chairman of the Natural Resources Committee) played vital roles that deserve far more analysis and a much weightier assessment than is suggested by the authors' "other influential factors."

Few people are likely to agree in every particular with any interpretation of events as complex as the Coastal Act's passage. It is only a pity that Squire and Scott's sensitive study has come out almost ten years after those events took place.

—Bill Boyd

Coastline International

Coasts: Institutional Arrangements for the Management of Coastal Resources. Jens C. Sorensen, Scott T. McCreary, and Marc J. Hershman. Renewable Resources Information Series, Coastal Management Publication No. 1, July 1984. Available free from Mr. John Clark, National Park Service, 1100 L Street N.W., Room 2115, Washington, DC 20240 (202) 343-7049.

In 1980, the National Park Service and the Agency for International Development decided to collaborate and develop a worldwide "Natural Resources Expanded Information Base." This ambitious project seeks to improve the ability of nations, especially developing nations, to manage natural resources such as arid and semi-arid rangelands, tropical systems, and coastal zones. *Coasts* is part of a continuing series of publications generated by this project.

The stated objective of *Coasts* is "to characterize the institutional arrangements that coastal nations and subnational units have used to conserve and develop their coastal resources and environments." Of the 136 independent coastal nations, the authors reviewed the available literature on institutional arrangements for coastal zone management in 75 countries, with special attention on 25 nations including the United States. The report attempts to develop two sets of guidelines: one for international assistance organizations wishing to fund coastal resource management; and a second for government officials (and their consultants) who want to develop comprehensive coastal management programs.

The first set of guidelines is useful. The report identifies many potential coastal nation grant recipients that would benefit by developing more rational and comprehensive coastal management programs. It also outlines a myriad of research projects that should be undertaken in order for coastal nations to have enough baseline data to develop such programs.

The guidelines for government officials are not so successful, which is unfortunate because this is the portion of the book that would be of most use to potential coastal managers. Rather than outlining "how-to" guidelines for setting up a comprehensive coastal management program, *Coasts* merely points to management issues that may need to be addressed. The authors avoid a rigid checklist of guidelines because the institutional arrangements for each country are so varied. However, more discussion of the issues, and more examples of how coastal nations successfully or unsuccessfully resolved the issues, would provide managers with better insight into how different management strategies could work in their own countries.

The book is filled with interesting facts drawn from an extensive bibliography to delight serious coastal trivia fans, budding international consultants, and other coastal professionals. Though the writing style is very academic, the authors are fairly good at defining their jargon. *Coasts* is a good first step in gathering existing information on the field of coastal zone management and in identifying the need for wise use of coastal resources. If nothing else, the recommendations presented should provide consultants and academics with several interesting research projects in the years to come.

—Alyse M. Jacobson □

Joe's Corner

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to visitor-serving development. The irony is especially sharp because the hotel promises to elevate the rest of the development into the sort of resort community developers love.

Dana Point is growing into what some have called the California Riviera. In this case, access requirements benefited not only the people of the state, but also the community of Dana Point and ultimately those who own property there.

In the community of Oceanside, in San Diego County, a much different urban waterfront project is going forward, though it too shows the advantages of integrating public access with private development. Instead of responding to development pressures, as in Dana Point, Oceanside plans to create an urban waterfront that will encourage new development. The city expects its waterfront to benefit physically and economically.

Oceanside became interested in the project because its waterfront was badly deteriorated and economically depressed. The city wanted to investigate the commercial potential of the beach, which was not being realized. The first plan which the City Redevelopment Agency prepared focused on the residential and commercial uses of the waterfront property. However, some of the city's residents were against the massive development proposed, and the Coastal Commission was bothered by the lack of open space, inadequate public access, and problems with traffic and circulation. The Coastal Conservancy was called in to develop a program with the city that would resolve these conflicts. After conducting extensive economic analyses, a series of citizen workshops, and a design competition, the Conservancy produced a plan that met most of the objections.

The final plan approved by the city of Oceanside embarked on an extensive restoration effort. One part of the plan sought to increase the usefulness and the value of Oceanside's waterfront by converting a solid block of developed beachfront into a public park, called the Strand Park. As in Dana Point, the park would offer public access close to commercial and residential development.

As it happened, however, one large parcel of property in the designated block, containing an old apartment building, was too expensive to buy easily. The difficulty this presented was resolved when the new owners, an investment group, made it clear that they intended to rehabilitate the building in a manner consistent with the city's plans. The city of Oceanside and the Coastal Commission have approved this change in the plan, and Strand Park will be designed around the new development. The Conservancy has loaned the city $900,000 to create the park.

The requirement of visual and physical access has not, in the Oceanside project, prevented development. On the contrary, the expensive renovation that this investment group is planning would have been unlikely and certainly would have been less profitable if the city hadn't been working to enhance the waterfront area as a whole.

In addition to these economic benefits, the project has brought Oceanside some less expected rewards. The Oceanside Strand Restoration Study received a Meritorious Program Award from the California Chapter of the American Planning Association and a citation for an "outstanding contribution in design" from the San Diego Chapter of the American Institute of Architects.

In the two very different projects at Oceanside and Dana Point, the rule of access manages to serve both art and commerce and to offer substantial rewards to the public at large, to the waterfront community, and to the private developer. □

Backwater

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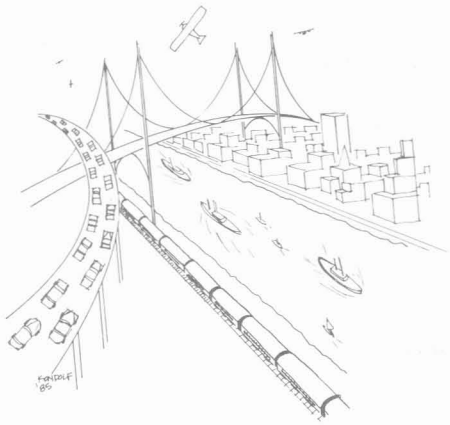
proposals would devastate this source. First, charitable deductions would be restricted. This would curtail philanthropic contributions made by nonprofit corporations such as the Monterey Bay Aquarium Foundation or the Trust for Public Land. While these philanthropic projects do not always involve public works, they serve the public in many similar ways. Secondly, the Treasury Department proposes to eliminate deductions for state and local taxes, which will make taxpayers in areas with high taxes more resistant to paying for public works. Finally, Treasury proposes the abolition of all private-purpose (nongovernmental) tax-exempt bonds. This would eliminate sixty-two percent of the total 1983 volume of tax-exempt financings, including bonds for private pollution-control facilities, docks and wharves, nonprofit hospitals, some kinds of housing projects and convention centers, and other privately owned facilities.



Some state and local governments are responding to fiscal austerity by shifting some of the cost of public works to developers and users. "User-financed" facilities are possible if direct beneficiaries can be isolated and taxed. A common vehicle for taxing the users is a "revenue bond." However, these have limited value because it is often difficult to charge all the beneficiaries, and user fees are typically insufficient to cover operation and maintenance costs.

All this may be important, but it still sounds highly esoteric. Public works must be made understandable to interest groups not as "intrinsic infrastructure" but as concrete public needs. On the California waterfront, understanding these abstractions is especially crucial. The California waterfront symbolically and practically serves two functions; it is at once an edge and a center. In both these capacities, the waterfront has unusually heavy needs for public works.

As the edge between land and water, the shore requires unique facilities. Waterborne commerce needs piers and wharves. Ports are public enterprises with massive capital needs. Rivers, bays, and ultimately the ocean are the receptacles of our stormwater and wastewater, for which massive treatment plants are needed. Increasingly, the waterfront is also a center for business and recreation. For this reason, the public must bear the massive costs of highways, streets, parking facilities, and transit systems to serve waterfront development.

At the same time, water complicates construction and maintenance and makes the cost of public works on the shoreline exceptionally high. Bulkheads, breakwaters, and similar structures are enormously expensive; even more routine public works cost more on the shore that they do inland. Moreover, the facilities on the older urban waterfronts are decrepit and need substantial repair or modernization.

With funding sources for public works under attack, the time has come for the public to decide how much it values its waterfronts—before they crumble into the sea or turn into private enclaves. The first step is education; we can no longer expect public finance magically to produce the public works we need. Real money, from real taxes, is needed. Even in the shoreline fog, if the public sees a return on its taxes, perhaps it will restore funds for the overlooked necessities of our waterfronts—those centers of commerce and recreation so essential to our public happiness. □

BACKWATER

Donald B. Neuwirth

Do You Want to Buy the Golden Gate Bridge?

> There will always be people who say that cleaning up our waterfronts and turning them into places of enjoyment for all the people of the city is a frill, a luxury, something we can't afford—certainly not as long as the budget isn't balanced, or housing is insufficient, or there are Communists who might threaten us. Nonsense!
>
> Our bodies and spirits need the fresh breezes that blow from the water. We need both its calm and its stimulus. We need the sense of community, the opportunities for festivity, for artistic expression, recreation and commercial bustle that the urban waterfront offers. We need what August Heckscher has called "the public happiness."
>
> —Wolf Von Eckardt, *Time Magazine*

To those who agree with this sentiment, public finance is the most important of boring subjects. Public finance buys "the public happiness" with public works—the streets, sewers, boardwalks, breakwaters, and other government-owned facilities that make development and recreation possible. But the phrase "public works" has a distinctly 1930s ring to it, while "infrastructure" is decidedly a word for the 1980s. In fact, last year was a banner year for infrastructure. Most major investment banking firms conducted nationwide surveys on infrastructure needs and financing mechanisms. The Congressional Joint Economic Committee conducted a major multistate study of infrastructure. In California, the Debt Advisory Commission and the Assembly Office of Research completed separate reports on infrastructure needs, while the Governor convened a task force on infrastructure. What happened and why is this important to the waterfront?

These studies looked at "intrinsic infrastructure," with some variation of included systems but all necessary to the state's economy. The Assembly Office of Research found that state highways, county roads and city streets, public transit, sewers, water supply, solid waste management, and flood control facilities will face a $24 billion revenue shortfall over the next ten years. The Debt Advisory Commission looked at these systems, substituting airports and railroads for solid waste treatment and flood control, and found a revenue shortfall of over $40 billion by the end of the century. The Governor's task force added schools, parks and recreational facilities, hospitals, prisons, public power plants, and power lines to estimate a shortfall of over $50 billion in the next decade. Accuracy and methodology are irrelevant; all these estimates point out a serious, expensive, but somehow abstract public need.

Public works, and the funds needed to build and maintain them, are taken for granted by most of us. Yet these "hidden" funds for "hidden" goods are coming increasingly under attack. After the "taxpayers' revolt" of the seventies, local general obligation bonds and local property taxes are no longer realistic tools for financing and maintaining public works. However, voters have been routinely approving state general obligation bond issues for parks, clean water programs, and other facilities. These have usually been significantly augmented by large federal contributions—distributed as grants to local districts or used directly by state agencies. Now many of these federal grant programs are proposed for extinction after several years of massive fund reductions.

Another source of funding derives from the tax deduction. The Treasury Department's current tax simplification

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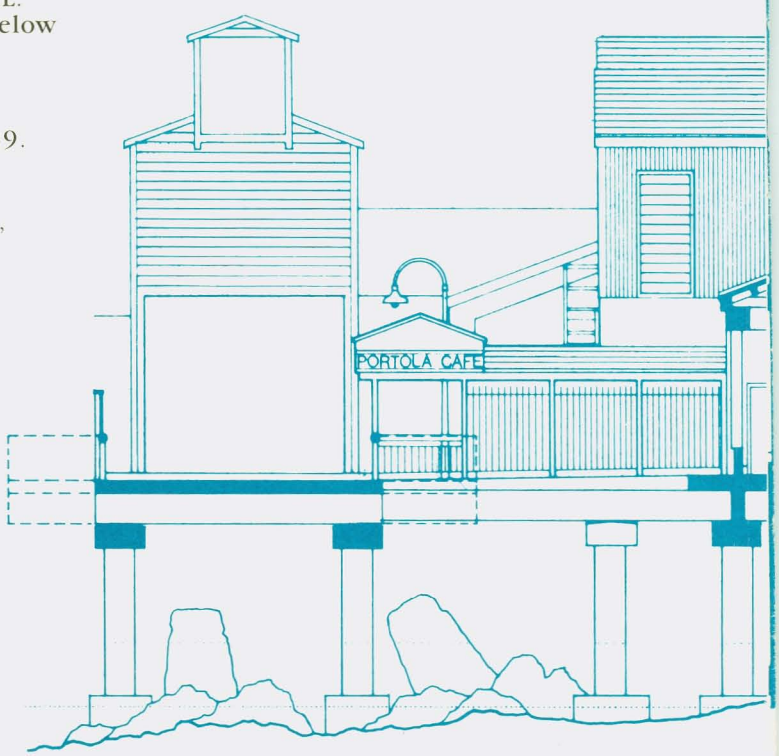

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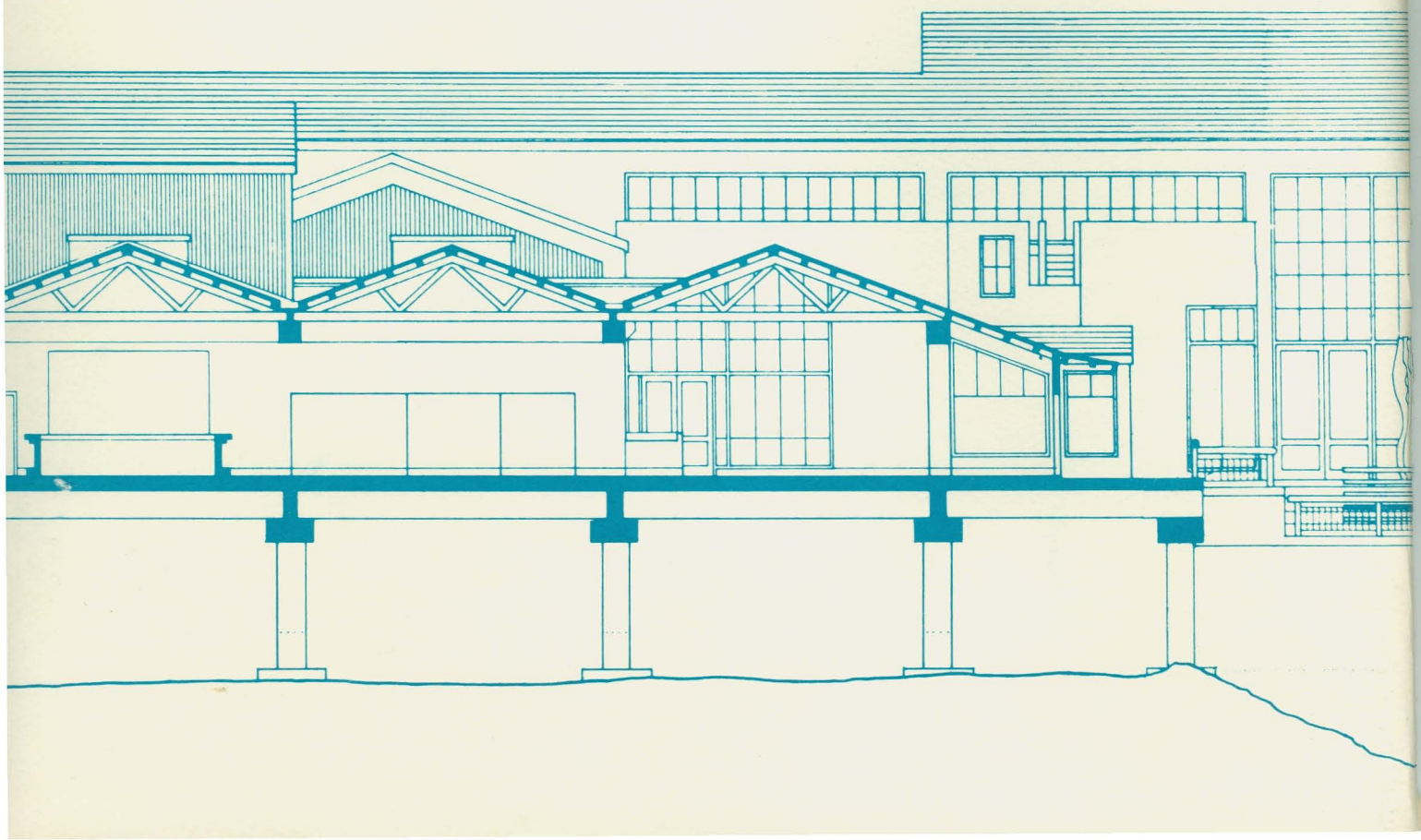
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