

MARINE CONSERVATION RESEARCH INSTITUTE

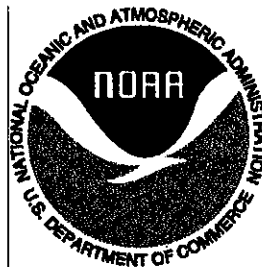
AQUARIUM OF THE PACIFIC

Forum on Ports

Our Ports in Perspective

MCRI REPORT 03-6

12/5/03



OUR PORTS IN PERSPECTIVE
A Forum of the Aquarium of the Pacific
Marine Conservation Research Institute

Jerry R. Schubel
Barbara Long
Patricia A. Tullock

Sponsored by NOAA

EXECUTIVE SUMMARY

The Aquarium of the Pacific is developing plans for a port exhibit. The Aquarium is the only aquarium in the country, perhaps in the world, that focuses on building and sustaining natural capital—nature—by building and sustaining social capital—the ties between and among people. What better place to do this than in Long Beach, its neighbor San Pedro and Southern California. The San Pedro Bay is home to two ports—Long Beach and Los Angeles—and two aquariums—the Aquarium of the Pacific and the Cabrillo Marine Aquarium. All four organizations have participated in the exhibit planning process.

Together the ports of the San Pedro Bay are the largest container port in the United States and the third largest container port in the world. These ports are a major economic driver for the region, the state, and the nation. Although located in different cities with different governance systems, the two ports are conjoined physically and are part of a common watershed. They also share many of the same opportunities and challenges. The impacts of the ports' projected growth on the water, the air and the land—intermodal transport, traffic congestion, air pollution, vulnerability to terrorism, etc.—are of increasing concern to the public and their elected representatives. Lately, the public often sees the ports only in terms of the negative impacts and fail to consider the importance of ports not only to the national economy but to their household and modern living standard. While the ports reach is wide, approximately half of the imports are destined for the local Southern California market.

Although the ports are receiving more press attention now, many of the Aquarium of the Pacific's 1.2 million annual guests do not know about ports. They may think a port where they connect their printer to their personnel computer. The Aquarium

plans to create public programs and exhibits that will educate guests of all ages about our ports and how they are a necessary component of sustainable coastal communities. The Aquarium will present an exhibit and programs on ports and the related issues facing the Pacific Ocean and its coasts and then facilitate discussions about the ports' role in the region.

The Aquarium began the program and exhibit planning effort by first convening a steering committee, comprised of leadership from the two aquariums, the two ports, and other organizations. The steering committee met to outline the focus, scope, and expectations for the exhibit-planning forum. They determined that the exhibit and collateral programs shall focus on "the ports of San Pedro Bay"—the Ports of Long Beach and Los Angeles—but shall provide the context and perspective necessary to understand and appreciate the importance of these ports in the national and international networks of ports and transportation systems.

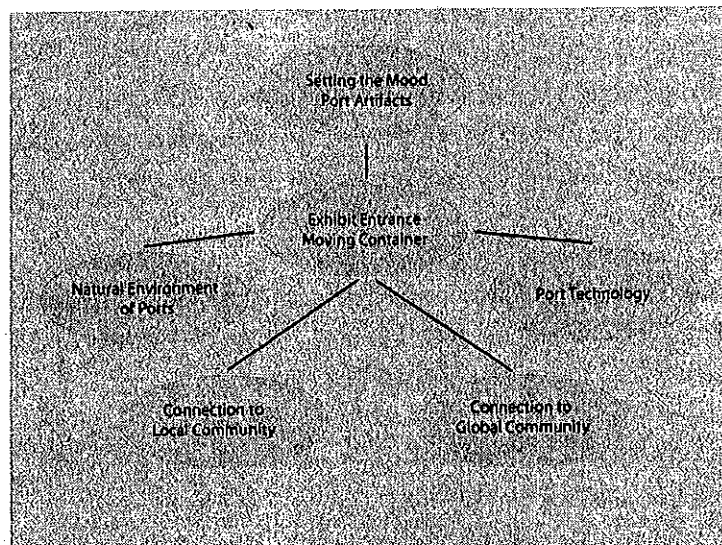
Next, the Aquarium hosted the first exhibit planning session, "Our Ports in Perspective" forum held in June, 2003. The forum focused on how to tell the story of the twin ports of San Pedro Bay—their economic importance, links to the world, equipment and technology infrastructure, rich history and environmental issues—in exhibits at the Aquarium of the Pacific, the Cabrillo Marine Aquarium and the Los Angeles Maritime Museum. Forum participants included representatives of the Ports of Long Beach and Los Angeles, USC Sea Grant, Los Angeles Maritime Museum, NOAA, CSULB Center for International Trade and Transportation, local and state government, private sector, exhibit designers and staff from the two aquariums.

The Aquarium asked participants to use their combined expertise and creativity to achieve the forum's two main goals:

- Develop a conceptual design for an exhibit on "Our Ports in Perspective" that is coherent with the scope and desired outcomes
- Develop a detailed description of collateral materials—those existing and those needing development

The forum participants achieved both goals, and the following forum report includes preliminary conceptual ideas for exhibit modules or components, ideas for related programs such as a potential San Pedro boat trip for schools and the public, topics to include in the exhibit and collateral material. Major components of exhibit(s) on the ports of San Pedro Bay are shown in the following diagram. These components can be located at one or both aquariums and at the Los Angeles Maritime Museum.

A Port Exhibit



As the guest approaches the exhibit, the first step is to *set the mood*, transitioning the guest from animal and habitat exhibits to an exhibit where humans, machines and technology play the lead roles. Ports are located on the coast—the transition from the land to the ocean, from man to the sea. One suggestion is to use another transition—from night to day—first orienting the guest to the stark beauty and relative quiet of the port at night—like the ocean not asleep but dark—and then to the hub of activity that is the port in the day as ships unload container after container and the imported goods begin the journey to their ultimate destination—homes across the U.S. And, perhaps the guest will then *enter* a container and experience such a journey as the exhibit simulates the movement of a loaded container as it rides along the railroad tracks. Then, the guest may choose what aspect of our ports to investigate next:

- *Port Technology* where guests may explore images of cranes juxtaposed to their imaginary descendants, the creatures in the Star Wars movies as one method of conveying scale, or guests may “pilot” tugboats as they take a ship into port,
- *Connections to the Global Community* where guests may use a bar scanner to identify the point of origin of goods in their home or guests may learn the latest news about the risks of ports face as part of a global network—risks from invasive species to terrorism,
- *Connections to the Local Community* where guests may learn about how ports evolve and adapt to their locality as animals must do to survive; features may include a pictorial history, including the colorful Rattlesnake Island, and a “sim-port” game incorporating lessons learned in the Aquarium’s Sustainable Coastal Community program—an after-school program for CORAL kids organized by the education department,

OUR PORTS IN PERSPECTIVE

Table of Contents

1. Overview of Port Exhibit Planning Forum	7
2. Ports of Long Beach and Los Angeles	9
3. Breakout Seccession Summaries	10
4. Port Boat Trip Summary	14
5. DeBono's Six Hat Thinking Summary	14
6. Exhibit Conceptual Design	16
7. Collateral Material	16
8. Next Steps	17
9. Appendices	
9.1. Appendix A Forum Agenda	19
9.2. Appendix B Forum Participant List	21
9.3. Appendix C Steering Committee	22
9.4. Appendix D Steering Committee Meeting Summary.....	23
9.5. Appendix E Breakout Sessions	26
9.6. Appendix F DeBono's Six Hat Thinking	35
9.7. Appendix G PowerPoint Presentation on Exhibit	38
9.8. Appendix H Information Sources and Other Port Exhibits	45

- *Natural Environment* where guest may view a live-animal exhibit featuring the healthy under-water world of the San Pedro Bay, including the Cabrillo's Garibaldi, while accessing an interactive display about air quality issues that the marine transportation industry is grappling with today, issues of great concern to our region as a result of the ports' successful growth, the geography of the Los Angeles basin and decisions our guests make everyday.

Additional information regarding the exhibit concept is contained in the following report. Ed Mastro, Exhibits Curator at the Cabrillo Marine Aquarium, compiled and organized the ideas of all forum participants. His expertise at exhibit planning was essential to the success of the first planning session.

Since the initial port exhibit planning forum, the Aquarium of the Pacific has made significant progress related to developing a port exhibit.

- In November, 2003 the Aquarium's education department completed an after-school program with CORAL that enabled children to determine what a sustainable coastal community looks like in 2025 using Long Beach—and its port—as the model. The children's ideas for a port of the future will be considered when developing our port exhibit plans. This education program was funded by the Port of Long Beach, NOAA, the Lower Los Angeles and San Gabriel Valley Rivers and Mountains Conservancy (RMC) and several City of Long Beach departments as well as corporate and foundation support.
- The Aquarium board and staff are developing a master plan that will include the port exhibit as a funding opportunity.
- At the suggestion of the City of Long Beach, the Aquarium is working to redefine its boundaries to provide more exhibit flexibility and space.
- The Aquarium is submitting a proposal to the RMC for a planning grant of \$200,000 to develop exhibits on the Los Angeles basin watershed and will begin planning this exhibit in January, 2004. These exhibits will be adjacent to and integrated with a port exhibit at the Aquarium.
- A second exhibit planning workshop is scheduled for December, 2003 and will focus on developing and prioritizing specific port exhibit storylines and components. Staff, exhibit designers and representatives from the Port of Long Beach, USC's Sea Grant program, and the California Assembly will participate in this charrette.

Next steps include developing conceptual renderings of the exhibit plans, exhibit budgets, and a funding plan as well as potentially engaging the members of the community in an exhibit planning session to discuss what they would like to see in an exhibit about their port in their aquarium. Planning discussions with the Cabrillo Marine Aquarium will resume after they open their new wing in Fall, 2004.

This page left blank for your notes.

Our Ports in Perspective
A Forum of the Aquarium of the Pacific
Marine Conservation Research Institute

OVERVIEW OF PORT EXHIBIT PLANNING FORUM

"Our Ports in Perspective" forum held on June 12-13, 2003 focused on how to tell the story of the twin ports of San Pedro Bay—Long Beach and Los Angeles—their equipment, economic importance, links to the world, rich history and environmental issues in exhibits at the Aquarium of the Pacific, the Cabrillo Marine Aquarium and the Los Angeles Maritime Museum. Held on June 12-13, 2003 at the Aquarium of the Pacific and sponsored by NOAA, representatives of the Ports of Long Beach and Los Angeles, USC Sea Grant, Los Angeles Maritime Museum, NOAA, CSULB Center for International Trade and Transportation, local government, private sector, exhibit designers and staff from the two aquariums attended. The forum agenda is included as Appendix A; a list of participants is included as Appendix B.

The Aquarium asked participants to use their combined expertise and creativity to achieve the forum's two main goals:

- Develop a conceptual design for an exhibit on "Our Ports in Perspective" that is coherent with the scope and desired outcomes
- Develop a detailed description of collateral materials—those existing and those needing development

These goals were clarified by discussing the scope of the exhibit developed by the port exhibit project's steering committee. The steering committee met prior to the forum to establish the framework for the exhibit; steering committee members are listed in Appendix C and a summary of their meeting is in Appendix D. The two-part scope, focusing first on the ports and second on their context nationally and internationally, was formally stated:

"The exhibit and collateral programs shall focus on the ports of San Pedro Bay—the Ports of Long Beach and Los Angeles—but shall provide the context and perspective necessary to understand the importance of these ports in the national and international networks of ports and transportation systems."

Once the scope for the "Our Ports in Perspective" exhibit had been stated, the desired outcomes for both the exhibit and collateral materials were delineated. In developing their conceptual design for the exhibit, the forum participants used certain outcomes identified by the steering committee as indicators of success:

- Repeat visitation because of its engaging, entertaining and educational content
- People stimulated to seek additional information on our ports and ports in general from other sources, museums and partner aquariums
- Increase the knowledge of our ports and their role in the nation's and the world's system of ports
- A greater appreciation of the importance of ports in general and our ports in particular
- A recognition that ports are great places to work
- An understanding that ports can be good neighbors—as viewed from a number of perspectives
- Recognition that ports are an appropriate coastal-dependent use.
- Development of port tours that are entertaining and educational—port cruises that are FUN.

After a discussion of ports, the reasons for a port exhibit and overviews of both the Port of Long Beach and Los Angeles, the participants turned to the task of developing components for the exhibit. While a lucky few took a boat trip in the port, others formed groups to discuss issues of importance to the ports and work on a strategy to develop exhibit components. The results of these discussions, captured on flip charts, were then presented to the entire forum. Upon their return from the port, those who had taken the boat trip described the trip and what it would take to have a great port tour.

On the second day, the forum attendees were encouraged to wear several hats, literally, and think out of the box. Edward DeBono developed a strategy, "Six Hats Thinking" to spur creativity in groups. In an effort to capture all the possible concerns, issues and out of the box possibilities, hats of various colors were worn. The colors, red for emotion, black for negativity, green for creativity, white for objectivity, yellow for optimism and blue for overview, indicated what mode of thinking could be used in the discussed. Many funny, blunt and insightful comments emerged.

As a result of the knowledge and enthusiasm of the participants, a substantial number of ideas, suggestions, possibilities and general information were discussed and captured. To help focus this material into content that could be used in an exhibit, a small group of attendees developed a PowerPoint presentation. This presentation distilled the collected information into four content areas:

- Technology
- Connection of the ports to the global community
- Connection to the local community

- Port environment

It was decided that all the topics discussed during the forum could be worked into these content areas. Then, the group identified potential collateral material. The forum ended with a summary discussion and next steps. The latter discussion recognized that this forum was a beginning and that there is much more work to be done. Funding, material development and partnering with other institutions, all needed to be worked out in the future. This was the first of many meetings and work sessions. A smaller group would convene to work on these issues.

THE PORTS OF LONG BEACH AND LOS ANGELES

The ports are exciting and the proposed exhibits seek to capture that excitement. The overviews of the Ports of Los Angeles and Long Beach presented vibrant examples of the ports' astounding activity and impact. The ports are economic powerhouses. Combined, they are the largest container port complex in the United States and the third largest in the world. One in twenty-four jobs in the region can be directly connected to port activity. Revenue from the Port of Los Angeles is \$290 million annually. \$1 in \$23 in the regional economy is related to the ports. The Port of Long Beach has \$95 billion worth of cargo enter it every year. And almost everything we wear and much of what we have in our homes comes through the ports.

These vital ports did not have an auspicious beginning. Once described as mud flats that wouldn't amount to anything, these man-made ports now cover thousands of acres of land and water. They are links to the world. In Long Beach alone, there are 80 deep-water berths and 60 cranes. And then there are the containers. 43% of all the cargo that goes through Los Angeles is containerized. These containers constitute 62% of the revenues for the Port of Los Angeles. As well as the enormous infrastructure of the ports themselves, there are all the related transportation links—ships, tankers, freeways, railways, and trucks—that move all the electronic goods, clothing, cars, steel, and other cargo that stream through the ports everyday. Exports of scrap metal, paper, rags and waste products add to the constant activity at the ports.

All this activity has its downside: as a result of port activity there are strains on the infrastructure of Southern California. There are concerns with port growth, environmental issues—water, air, light, and noise—and the quality of life for those living near the ports and main transportation arteries.

All this commercial activity including the technology, history, jobs, concerns, and positive aspects of the two ports is what will be presented in the proposed "Our Ports in Perspective" exhibit.

BREAKOUT SESSION SUMMARIES

The port exhibit will be multifaceted and complex. There are so many areas to consider—the ports themselves, their history, the equipment, jobs, transportation networks, environmental issues and international connections, to name just a few. In order to use the expertise of the forum participants and capture as many diverse concepts and ideas as possible, breakout sessions consisting of three to seven people brainstormed ideas for the following pre-defined issues:

- Why are the two ports here? And, why two ports?
- San Pedro Bay through the decades. How the ports have changed, the development of the jetties, etc.
- Our ports as nodes in the national and international network of ports
- Our ports as components of the transportation system
- Our ports as places to work: number and variety of jobs
- Our ports and the economy—local, regional, state, national
- The port issues no one wants us to talk about
- It's more than you see: the extent of the land-side infrastructure
- Our ports as neighbors: what's it like living next to them?
- Our ports and the environment—air and land
- Our ports and the environment—water

The results of the discussions were later presented to the forum at large. As some topics were more complex than others, the results were varied. Some groups listed exhibit topics; some took the next step to suggest exhibit possibilities. Appendix E includes a complete listings of the ideas noted in each breakout session.

The answers to the questions—“Why are the two ports here? And, why two ports?”—are found in history, port location, trade and politics. The two ports are here simply because originally there were two cities that required them. Politics were also a factor. A turf battle between railroads was the reason for the Port of Los Angeles being located in San Pedro. Turf was also the reason San Pedro became a part of the City of Los Angeles. The location of the ports on the Pacific Rim near our largest trading partner, China, the climate on the West Coast and the fact that Los Angeles and Long Beach can create land to grow along with expanding trade were all reasons for the two ports. A photomontage of early port development was suggested as an exhibit. Another exhibit idea would show where all the products we use come from.

The group brainstorming the issue—“San Pedro Bay through the decades. How the ports have changed, the development of the jetties, etc.” presented the forum with a comprehensive history of San Pedro Bay, its development, the effects of wars and construction and population shifts. Starting from indigenous people and Cabrillo, this group traced the port's history to today. Everything has changed including the

types of commodities that come through the port. In the early days, the main cargo was lumber from the Pacific Northwest; today it is electronics and clothing from Asia. The kinds of jobs, cannery workers to crane operators, have changed as the ports have gone from manual labor to mechanization to computerization. This group also discussed non-commercial uses of the bay such as boating and beaches.

Breaking their discussion into areas of geography (where) and commodity (what) the session, discussing "Our ports as nodes in the national and international network of ports" looked at both local and national markets, infrastructure and commodity movement—importing finished goods and exporting waste materials. Pointing out that the port complex is the third largest in the world, they discussed the relationships of the ports with railroads, discretionary cargo, the land bridge concept and the ports' role in Homeland Defense. The group suggested interactive exhibits. One exhibit would show the ports' trading partners and the movement of unfinished and finished goods from the United States and Asia. Other possibilities included a world map that would light up and show the major ports of the world. Interactive choice-based systems for some displays were their recommendation. This session proposed that the central theme of the exhibit should be all the various commodities that come through the port.

The group working on the topic, "Our ports as components of the transportation system" looked at systems, asked questions and defined benefits. They identified problems when systems break down and the resulting effects on the supply chain. Specifically, they spoke to the port strike and problems of the 710 Freeway expansion. A huge benefit that the ports provide is job creation, but this session also pointed out the disadvantages of having the world coming through the ports. These disadvantages include disease, security concerns and environmental protection. The role of various groups in the planning process of transportation system was discussed. The groups included the local population, local, regional and national planners, and system designers. This group asked questions about the people who might come to the port exhibit: What does our audience know coming into the exhibit? What does the general population know? What will make people feel connected to the ports?

Jobs are an important contribution of the ports to the local and national community. Over 500,000 jobs can be traced to their activity. The session studying the variety of port jobs identified 37 kinds of different jobs just in the ports and aboard ships. Many of these jobs require a high degree of skill and education. As well as the jobs on ships and docks, there are jobs in recreation, fishing, security, transportation, distribution, retail, ship maintenance and manufacturing that are associated with the ports.

The "Our ports and the economy" breakout group identified local, state and national issues. Among the benefits the ports provide for all the economies are taxes, goods and jobs. Locally, the ports provide jobs, recreation and a conduit for California farmers to export their goods. Nationally, California is a "donor state" with 60% of the goods that enter the ports transshipped to other parts of the nation and Europe. This puts stress on Southern California infrastructure and causes environmental concerns. The issues of the United States being a consumer nation, the ports having allowed us to switch our economy from a manufacturing nation to a service economy and the movement of jobs out of the United States were also discussed.

Everyone wanted to talk about the topic "The port issues no one wants us to talk about." All the members of this group understood that for this exhibit to have credibility, the negative issues—real and perceived—surrounding the ports and their activities needed to be confronted. This well attended breakout session discussed issues including:

- The combining of the two ports and port expansion
- Water, air, light, and visual pollution
- 24/7 operations
- Traffic and impacted infrastructure
- Alternate fuels and cold ironing
- Labor
- Security and hazardous materials

Land-side infrastructure in the ports, as identified by this session, was organized into four areas: in-port, off-port, water-side infrastructure and land-side interface. In-port infrastructure includes container terminal, dry bulk and liquid bulk requirements, petroleum coke domes/barns, marinas and public facilities. Off-port infrastructure was identified as transportation and storage facilities—roads and freeways, railroads, Alameda Corridor, rail yards in the Midwest, distribution centers, warehouses and inland ports.

Water-side infrastructure was identified as berths for container vessels, tankers, tugs, barges, and the Marine Exchange vessel-monitoring system. It was pointed out that the tripling of the size of container vessels was a driving force in the evolution of water-side infrastructure. Land-side interface, an excellent focus for and interactive exhibit at the Aquarium, included cargo off-loading, break bulk, containers, tankers, and automobiles.

The session, "The ports as neighbors," generated many responses. Acknowledging that the ports provide a huge economic benefit for Southern California, this group also pointed out the issues brought about by the ports' activity. These positive and negative aspects of the ports include:

- *Positive*
 - Gateway to the world
 - Port Support of education
 - Jobs/Economy including the movie business
 - Environmental projects, wetlands
 - Port presence attracts business
 - Diversity of community
 - Breakwater
- *Negative*
 - Air, visual and light pollution
 - Trash and sewers
 - Security concerns
 - Ballast Water = invasive species
 - Air particulates
 - Traffic issues
 - Breakwater

The session dealing with the ports' impact on air and land environments asked the rhetorical questions, what could and could not be done by local, state and federal governments to minimize these impacts. State, federal and international regulations were acknowledged as a positive force in air and land clean-up at the ports, but it was recognized that this effort was ongoing. The participants acknowledged that many different approaches were required to deal with this multi-faceted problem. Controlling air pollution caused by diesel engines on ships, trucks, trains and cranes is an issue that the ports still struggle with. Cleaning up Brownfields and landfill was another topic of discussion. Session participants stressed that there were some very positive programs in-place or being implemented as well as the difficult issues. A pie chart showing the size of problem with sectors data was suggested.

The last session to present its suggestions to the forum dealt with the topic of the ports' water environment. Again, this group looked at the problematic issues and the improvements in the port. Participants acknowledged that regulations had aided in cleaning up the ports and suggested that specific examples of port improvements be part of the exhibit. Some of the improvements and issues included:

- *Issues*
 - Ports responsible for activities within but also victims of upstream trash
 - Surface runoff
 - What is the extent of effects? Do we know?
 - Ballast water and invasive species
 - Risk factors

Other sources

- *Improvements*

Dredging over past years that have removed contaminated material

10-20 year baseline comparison for water quality

Mitigation outside the ports

Bird and fish numbers improving

Creation of shallow water habitat

Inner channel (upstream) improvements

Kelp/sea grass plantings

Pier 400 sea fans

- *Monitoring*

What type of monitoring and what trends does monitoring show?

PORT BOAT TRIP SUMMARY

The idea of an interesting boat trip of the port and its facilities generated a great deal of excitement. Everyone wanted to go. Some of the ideas for the trip included a deluxe evening dinner cruise, a night cruise and a trip that would link the Aquarium of the Pacific, Cabrillo Marine Aquarium and the Maritime Museum. The discussion also turned to what activities or learning events could take place while the port tour was in progress. Besides historical stories and oral histories, possible topics or activities that could be accomplished while on the boat tour could be:

- A treasure hunt
- Counting birds and/or other animals
- Going to the Sealaunch
- Staging reenactments at the Maritime Museum
- Port flora and fauna discussions
- Water quality and the water shed lectures
- Port infrastructure and equipment lectures
- Stories of historical figurers--fisherman and pilots
- Lectures on multiple uses of the ports
- Lectures on local oceanography

DEBONO'S SIX HAT THINKING

"Six Hats Thinking" is a strategy that was developed by Edward DeBono to facilitate the exploration of ideas and issues that have multiple and conflicting dimensions. Often in exploring such topics every opinion is counteracted immediately with a conflicting opinion and this "piling on" of ideas and opinions at worst polarizes the discussion and, at best, adds opacity to the issue rather than clarity. By structuring thinking into six different modes, each represented by a different color of cap, much of this confounding of opinions can be avoided. Everyone in the group wears the

same color cap at the same time and each must think in a way consistent with the modality assigned to that "thinking cap." The colors and their modalities are summarized below:

White: facts, figures, and objective information

Red: emotions and feelings.

Black: logical negative thoughts.

Yellow: positive constructive thoughts.

Green: creativity and new ideas.

Blue: control of the other hats and thinking steps.

While the entire group is instructed to wear a particular color of cap at one time, any member of the group can put on a different color of cap as long as it is in alignment with his/her comments. The sequence in which the caps are donned is up to the facilitator. Each color of cap must be worn at least once, and often each color is worn at least twice in an application. The hat exercise was a tool to capture any issues, feelings, ideas, out-of-the-box thinking or emotions that might not have been previously stated during earlier forum discussions.

While wearing white hats, objective, factual comments were elicited. The exhibit's cost, the amount of work to be done, and the requirement for the exhibit to be educational in a comprehensive way were some of the ideas that the participants expressed. Red hats signified emotional opinions. We need to come back, we are not done, frustration at the time line, glamorizing growth and consumption and that we all didn't get to go on the boat ride were included in the red, emotional category.

Black indicated gloom and doom. Comments about expense, lack of space, liability and environmental activists were voiced. Other concerns about not presenting the negatives associated with the ports, competition between the ports, bias and not having all the stakeholders at the table were also stated.

Expand creativity, the green hat, brought a flood of ideas. These ideas included ways to present the exhibits, use of the arts--contests, movies, music--involving kids in the exhibit, collateral materials, and possible partners for the development of the exhibit. Yellow, optimism, brought out positive statements about the exhibit being doable, that it would be fun and inspirational and that it would have a universal appeal. The blue was for the overview. The consensus was that the four messages of the exhibit--technology, connection of the ports to the global community, connection to the local community, and the port environment--required a balanced, integrated and layered approach. Appendix F includes complete listings of ideas generated while wearing different hats.

EXHIBIT CONCEPTUAL DESIGN

The first goal of the forum was a conceptual design for the exhibit, "Our Ports in Perspective". On the second day, a conceptual design that organized and synthesized the previous day's discussions and ideas was presented. The design consisted of four main messages: technology, connection of the ports to the global community, connection to the local community, and port environment. A second and equally important theme, collateral material to support the exhibit, was also presented.

The consensus was that all the ideas generated from previous discussions could fit into the framework of the conceptual design. The discussion then turned from the exhibit topics to how the topics information could be presented. All agreed that this exhibit needed to immerse visitors requiring them to use all their senses. A darkened entrance to the exhibit with the sounds of the port leading into four galleries was suggested as possible footprint for the exhibit. The PowerPoint exhibit presentation is contained in Appendix G.

COLLATERAL MATERIAL

The second goal of the forum was a detailed description of collateral material. To this end, the participants listed key information sources—books, individuals, videos, PBS program and related exhibits. The group looked at possible partners for the exhibit and discussed past and present port exhibits. A listing of potential collateral materials and other port exhibits is in Appendix H.

NEXT STEPS

Having met its goals and desired outcomes and knowing that this was just the beginning of the process, the forum turned to the next steps. These steps are organized into three categories—funding, information, people and partners—but are not shown in a set chronological order.

- *Funding*
 - Identify potential funders
 - Research proposal deadlines
 - Develop funding strategy
 - Solicit planning money
 - Prop. 40 money
- *Information*
 - Finish the report
 - Expand PowerPoint outline, flesh out the four curriculum circles
 - Develop conceptual plan
 - Conduct marketing testing
 - Do an inventory of what exists—curriculum materials, U.S. Ocean Policy report, etc.
 - Identify what people know and how ports work
- *People and Partners*
 - Convene smaller group to refine proposal, develop budget, etc.
 - Determine involvement./ roles of participating organizations
 - Report back to steering committee and alert boards
 - Explore a new neutral corporate entity, a "consortium" to fund
 - Involve communities, including "anti-710 growth" groups
 - Identify partner aquariums/museums interested in taking exhibit (example Smithsonian traveling)

This page is left blank for your notes.

Appendix A
Our Ports in Perspective
A Forum of The Aquarium of the Pacific
Marine Conservation Research Institute
Sponsored by NOAA
June 12-13, 2003
Agenda

Day 1 - June 12

9:00 Welcome and Introductions

9:15 What is a Port and Why a Port Exhibit?

9:30 The Goals of the Forum: Metrics of Success

- A conceptual design for an exhibit on "Our Ports in Perspective" that is coherent with the "Frames of Reference"
- A detailed description of collateral materials—those that exist and those that need to be developed

9:45 Brief Overviews of the Ports of San Pedro Bay

- The Port of Long Beach
- The Port of Los Angeles

10:15 Some Examples of Other Port-Related Exhibits

10:45 Strategy to Develop the Exhibit Components

Groups will form and reform around the following exhibit component themes. A lead person is identified for each below. We will do this in clusters of 3-4 at a time. Everyone will have the opportunity to contribute to each theme.

The First Cluster (30 Minutes)

- Why are the two ports here? And, why two ports?
- San Pedro Bay through the decades...How the ports have changed it, the development of the jetties, etc.
- Our ports as nodes in the national and international network of ports

The Second Cluster (30 Minutes)

- Our ports as components of the transportation system
- Our ports as places to work: number and variety of jobs
- Our ports and the economy—local, regional, state, national
- The port issues no one wants us to talk about.

12:00 Working Lunch: Brief Reports (5-10 Min. Per Topic) of the Morning Clusters

1:00 Strategy to Develop the Exhibit Components, continued

The Third Cluster

- It's more than you see: the extent of the land-side infrastructure
- Our ports as neighbors: what's it like living next to them?
- Our ports and the environment—air and land
- Our ports and the environment—water

A New Cluster Based Upon Interest in Particular Topics

- No more than 2 topics + 1 wild card

2:15 Reconvene in Plenary: Brief Reports of the Afternoon Clusters

3:15 Break

3:30 the Fifth Cluster

- What Would Make a Super Ports Cruise?
- New and Novel Ideas of Ways to Tell the Story of Our Ports

4:00 Clusters Report Out. No more than 20 min. per topic

4:45 A Very Brief Plenary

Schubel

5:00 Adjourn for the day

June 13 - Day 2

9:00 A description of the exhibits as now proposed

10:00 Let's put on our thinking caps

11:30 A revised description of the exhibit on our Ports in Perspective

12:00 Working Lunch to Outline Next Steps: Summary & Wrap-up

Appendix B

"Our Ports in Perspective" Forum Participants

<i>Name</i>	<i>Title</i>	<i>Organization</i>
Jerry Aspland	retired	Arco Marine, California Maritime Academy
Elmar Baxtar	Port Historian and Archivist	Port of Long Beach
Linda Duguay	Director	USC Sea Grant
Ari Epstein		MIT
Norman Fassler-Katz	Senior Consultant, California Ports	California Assembly
James Fawcett	Marine Transportation / Seaport Specialist	USC Sea Grant
Mike Getscher	Former Director of Facilities and Life Support	Aquarium of the Pacific
Sheila Gonzales	Principal Public Relations Representative	Port of Los Angeles
Paul Johansen	Assistant Director of Environmental Management	Port of Los Angeles
Tom Johnson	Manager of Environmental Planning	Port of Long Beach
Susanne Lawrenz-Miller	Director	Cabrillo Marine Aquarium
Pete Lee	Director	Los Angeles Maritime Museum
Barbara Long	VP, Government Relations	Aquarium of the Pacific
Ed Mastro	Exhibits Curator	Cabrillo Marine Aquarium
David Mathewson	Director of Planning and Research	Port of Los Angeles
Corinne Monroe	Volunteer	Aquarium of the Pacific
Lynne Preslo	President and CEO	GeoEco, Inc.
Mike Schaadt	Exhibits Director	Cabrillo Marine Aquarium
Paul Scholz	Coastal Management Services Branch Chief	NOAA
Jerry Schubel	President and CEO	Aquarium of the Pacific
Rebecca Smyth	California Regional Coordinator	NOAA
Bridget Sramek	Field Representative	Office of Assemblymember Lowenthal
Lauren Templin	Staff	Office of Councilman Baker
Patricia Tullock	Volunteer	Aquarium of the Pacific
Marianne Venieras	Executive Director	Center of International Trade and Transportation
Carl Anne Wylie	President and CEO	Carl Ann Wylie Associates

Appendix C
"Our Ports in Perspective" Steering Committee

<i>Name</i>	<i>Title</i>	<i>Organization</i>
Ralph Appy	Director of Environmental Management	Port of Los Angeles
Jerry Aspland	retired	Arco Marine, California Maritime Academy
Lisa Beazley	Attorney	Keesal, Young and Logan
Bill Collier	Attorney	Keesal, Young and Logan
Margaret Davidson	Director	NOAA
Linda Duguay	Director	USC Sea Grant
Norman Fassler-Katz	Senior Consultant, California Ports	California Assembly
James Fawcett	Marine Transportation / Seaport Specialist	USC Sea Grant
Jim Hankla	CEO (retired)	Alameda Corridor Transport Authority
Geraldine Knatz	Managing Director, Development Bureau	Port of Long Beach
Susanne Lawrenz-Miller	Director	Cabrillo Marine Aquarium
Barbara Long	VP, Government Relations	Aquarium of the Pacific
Lynne Preslo	President and CEO	GeoEco, Inc.
Jerry Schubel	President and CEO	Aquarium of the Pacific
Bruce Seaton	COO	Port of Los Angeles
Richard Steinke	Executive Director	Port of Long Beach

Appendix D

Steering Committee Meeting Summary Our Ports in Perspective *Frames of Reference for the Forum*

On May 29, 2003 the "Ports in Perspective" steering committee met to outline the focus, scope, and expectations for the forum scheduled for June 12-13, 2003. The following is a brief summary of steering committee's direction and discussion.

SCOPE

The exhibit and collateral programs shall focus on "the ports of San Pedro Bay" — the ports of Long Beach and Los Angeles—but shall provide the context and perspective necessary to understand and appreciate the importance of these ports in the national and international networks of ports and transportation systems.

DESIRED OUTCOMES

(Wherever exhibit and collateral materials are mentioned, it refers to an exhibit / collateral at the Aquarium of the Pacific and an exhibit / collateral at the Cabrillo Marine Aquarium).

The exhibit and collateral materials will result in

- repeat visitation because it will be so engaging, entertaining, and educational,
- stimulating people to seek additional information on our ports and ports in general from other sources, other museums, and from the partner aquarium,
- increasing the knowledge of our ports and of where they fit into the nation's and the world's system of ports,
- a greater appreciation of the importance of ports in general, and our ports in particular,
- a recognition that ports are great places to work,
- an understanding that ports can be good neighbors...as viewed from a number of perspectives.
- a recognition that ports are an appropriate coastal-dependent use.
- port tours that are entertaining and educational—port cruises that are FUN!

MESSAGES

The Steering Committee wants to see key questions and messages woven into an exhibit and collateral materials.

- Why are our ports here? What were the driving forces?
- Our ports are man-made. They are created by dredging and filling. The breakwater was critical for developing for the current San Pedro Bay ports.
- Ports have played important roles in culture...in the evolution of San Pedro, for example.
- Port infrastructure extends far beyond the geographic boundaries of the ports.
- The inter-modal connections are integral to port operations and opportunities for growth.
- Our ports are part of a national and global network of ports—large, small, deep, and shallow.
- By far (more than 80%???) of the world's trade moves by water and that percentage is unlikely to change significantly. Air transport is too expensive for most goods.
- Ports are part of the nation's transportation system and will only grow in importance.
- Our ports are important not only locally and regionally, but nationally in terms of their economic impact.
- With last year's strike we saw how quickly the economic impact was felt and how far across the country it extended. This rapid impact is coupled to "just in time" practices.
- Much of what we wear, use, how we heat our homes, etc. comes in through our ports.
- Our ports provide lots of jobs and lots of different kinds of jobs. Many are upper level "blue collar" jobs.
- Our ports are critical to national defense.
- Our ports are the cross-roads for California, the U.S., and the world.
- Our ports have lots of really big, cool machines—cranes, ships, trucks, etc.
- Our ports are very diverse in terms of the kinds of cargo and ships they handle...containers, bulk, cars, etc.
- Our ports and ships have sophisticated navigation systems...VTIS, GPS, etc.
- The Sea Launch story.
- Our ports also use tugs...magical boats that are "all engine"....
- Even though we have all of these sophisticated and powerful machines, in the end everything moves by the energy of people.
- Our ports have made significant efforts to be good marine environmental neighbors. The efforts to clean-up San Pedro Bay are an example, and these efforts have led to significant improvements.
- All is not good news...ballast water, air pollution, and traffic are still issues.
- Ports can be 24 hour operations, but they are part of complex interlocking systems with many components including warehouses and distribution centers which must be open to receive goods.

- The Nike shoe story...and the yellow plastic ducks....good stories to tell as part of this exhibit.
- Tie our exhibit and collateral programs to science and environmental literacy.
- Use oral history to tell some of these stories.
- Make connections to the Maritime Museum.

These are questions, messages, issues and stories that the Steering Committee wants the workshop to focus on in developing the conceptual model for exhibits and programs called "Our Ports in Perspective", and they should be designed to produce the desired outcomes.

Appendix E: List of Breakout Sessions

- Why are the two ports here? And, why two ports?
- San Pedro Bay through the decades. How the ports have changed it, the development of the jetties, etc.
- Our ports as nodes in the national and international network of ports
- Our ports as components of the transportation system
- Our ports as places to work: number and variety of jobs
- Our ports and the economy – local, regional, state, national
- The port issues no one wants us to talk about
- It's more than you see: the extent of the land-side infrastructure
- Our ports as neighbors: what's it like living next to them?
- Our ports and the environment – air and land
- Our ports and the environment – water

Breakout Session Summary: Why Are The Two Ports Here? And, Why Two Ports?

- Two cities
- Battle of the railroads put Port of Los Angeles in San Pedro. (KCET documentary) Maritime Museum
- Photomontage of early development – both ports at once
- Population centers need ports
- POLB/POLA can create land to grow with cargo volumes
- Good climate
- Pacific Rim
- The ports are a service to accommodate trade – trade makes the world go round. "Trade links the world"
- Visual: 1 of every 12 jobs- what are those jobs?
- What do we use that comes from overseas?

Breakout Session Summary: San Pedro Bay through the Decades--How the Ports Have Changed It, the Development of the Jetties, Etc.

- Cabrillo's discovery of San Pedro Bay in 1542
- Prehistory
 - Outflow of LA River – shifted only this century
 - Seasonal flow
 - Indigenous people
- Not a natural harbor like San Diego and San Francisco
- R. H. Dana "Muddy tide flat that would never amount to anything."
- 50 years later – Banning
- Effects of Wars
 - 1898 – Feds close San Pedro over Santa Monica for breakwater. 2 railroads
 - Building materials came by sea – lumber from the Pacific NW. "Random Lengths"

- San Pedro less exposed than Santa Monica
- Breakwaters – Catalina stone abandoned for San Bernardino/Chatsworth. Catalina rock too porous – but used for Pier 400
- Watershed – sedimentation a problem for Long Beach cement channels.
- 1908 city of Los Angeles annexed SP/ Wilmington
- Changes in population near port – how has port affected this
- Japanese American fisherman on Terminal Island – WWII displacement
- WWI created big demand for canned fish from LA because Europe was at war. Panama Canal opened.
- Canneries now all gone. Labor Intensive. Fish stocks decline.
- Change from hundreds of ships staying longer, with large crews to today
- Human labor to mechanized to computerized
- Harbor doesn't "look busy" - few larger ships
- Environmental changes – declines and improvements
- What kinds of jobs today in U.S.
- Effects of the major wars. WWII laborers brought in from elsewhere to work in canneries, ports, etc.
- Light pollution, diesel emissions – changing views due to cranes
- Non-commercial uses
 - Recreation – beaches, boating (How does it compare to other harbors in this way?)
- Oil as source of funding for the cities. (Sinking of land)
- Dates/reasons for different sections of breakwater

Breakout Session Summary: Our Ports as Nodes in the National and International Network of Ports

Where = Geographic

- Follow inputs from U.S. to international with products back
- Complex 3rd largest in world
- Tie geography and mapping to ducks and or Nike
- * Local market piece/national piece for each port
- Port – rail relationship (Alameda Corridor)
- Infrastructure for double stacking of trucks
- World map to show major ports
- Map of pacific – LA/LB trade partners
- Land bridge (Shipping from Asia to Europe across U.S.)

What = Commodities

- Ships route : Interactive, product buttons with lights
- Role of ports in Homeland Defense
- Interactive choice-based systems for some displays
- Lessons re: what things they have that come through ports (Central theme for overall exhibit)
- Imports verses exports message (raw materials and waste)

- Economics message (Why raw material out, finished products back)
- * "Discretionary" cargo versus local cargo

Overall Themes

- "Things everyone uses, wears or purchases come through ports."
- "Kids know computers have ports and don't realize computers come through ports."
- "It may look like an ocean, but it's really a highway."

History

- Panama Canal
- Ship sizes tripled
- Commodity manufacturing tripled

Breakout Session Summary: Our Ports as Components of the Transportation System

- Thinking about systems in general
- Transportation system as example of a system
- What happens when a piece of the system breaks down – e.g. strike,
- Models of systems
 - Rube Goldberg machines
 - Others

Address questions:

- How has transportation system shaped patterns of settlement and population?
- What does our audience know coming into the exhibit?
- What does the general population know?
- What will make people feel connected to the ports?
- Story of the whale
- Supply chain
- Limitations on volume
 - Infrastructure
 - Effects on quality of life
- Step-by-step picture
- Where do things go?
- What happens to them there?
- Where do they go next?

How

- Sim transportation (based on Sim City software game)
- Look at forest and trees
- How does the system affect individuals but what does the large, overall system look like?
- Evolution of system over time
 - Redundant components
 - More or less, now

Benefits and disadvantages of the world opening up

- Disease

- Security
- Jobs moving elsewhere
- Environmental protection

The transportation system is what connects us

As transportation reaches further, we are connected to world community.

Everything we do has to do with transportation.

Transportation is what connects us to the world

The sea as a highway

I am connected to Hong Kong

Role of various populations in planning system

- Local population
- Planners- local, regional, national
- Designers

What percent of goods go to or come from local area?

- Show graphically
- A map with piles of stuff representing how much goes where

Security questions

Is the LA/LB area better suited to evolving as transportation system evolves?

- To suit changes in future

How can/does/has the system been modified to meet changes?

How much infrastructure is unused?

Flexibility

Just-in time developments

Things that are transported that we do not want transported

- Disease
- Intrusive species
- Pollution

Are these local benefits to the transportation system, or is it all for people who live elsewhere?

What about the LA/LB area makes transportation here unique?

- Shipping lines
- Berthing
- Roads
- Rail

Breakout Session Summary: Our Ports as Places to Work: Number and Variety of Jobs

500,000 Jobs

Ship Jobs

- Captain
- Engineers
- Cooks
- Technology
- Deck hands

- Harbor pilots
- Tub operators
- Line handlers
- Crane operators
- Heavy equipment operators
- Yard equipment operators
- Lashers
- Customs inspectors
- Clerks
- Security
- Rail employees
- Truckers
- Cruise ship personnel
- Ship repair
- Bunker operators
- Vessel traffic people
- Commercial fisherman

Ports

- Marine research staff
- Port management
- Marine operators
- Ship supply service
- Public safety
- Trades – ports
- Equate numbers to city population
- Analogies of size
- Management
- Security
- Maintenance
- Engineers
- Planners
- Real estate
- Crane operators

Breakout Session Summary: Our Ports and the Economy – Local, Regional, State, National
California is a "donor state"

- Goods to other parts of the U.S. – 60%

Local

- Jobs
- Tax revenues
- Availability of goods
- Recreational opportunities
- Port philanthropy

Region

- Jobs
- Availability of goods
- Tax revenues

State/Nation

- Same issues

State

- 5th (?) largest economy if California were a country
- Farmers depend on our ports to export their products

National Economy

- We are a consumer nation
- Ports have allowed us to switch our economy from a manufacturing nation to a service economy
- Land bridge creates U.S. jobs

Breakout Session Summary: The Port Issues No One Wants Us to Talk About

- Combination of two ports
- Air pollution
- Traffic
- Double hulls
- Ballast water
- Regional infrastructure
 - Distribution centers
 - 24/7
- Impacted infrastructure
- Mexico
- Removing breakwater
- Port expansion
 - How big can you get before it gets bad? "Growth in trade"
- Organized labor in ports
- LNG
- LPG
- Visual pollution
- Impact of cruise ships
- Cold ironing
- Community financial support
- Security
- Hazardous material

Breakout Session Summary: It's More Than You See--The Extent of the Land-side Infrastructure

In Port

Container terminal requirements

- Cranes
- Yard equipment
- On-dock vehicles
- Gates
- Dry bulk
- Petroleum coke domes/barns

Liquid bulk

- Tank farms
- Pipelines

Marinas

Public/community facilities

EDI

Off Port

Roads and freeways

Railroads

- Alameda Corridor
- Rail yards – Midwest

Distribution centers, warehouses

Inland ports

Water-side Infrastructure

- Triple container vessel size growth/tankers
- Tugs, barges
- Marine Exchange – vessel monitoring

Land-side Interface (can be used as exhibit)

- Cargo off loading
- Break bulk
- Containers
- Tanker
- Autos

Breakout Session Summary: Our Ports as Neighbors—What's It Like Living Next To Them?

Visual and Light Pollution

- It's all relative
- Night skyline of port
- "Gateway to the World"
- European and worldliness

Port Support of Education

- International education
- GLS-Global Logistics Specialist (CSULB)
- International programs for high schools
 - POLA-Banning High
 - POLB-Poly High

Port philanthropy—"opportunity"

Ports and the movie business

- Star Wars
- Imperial Walkers— modeled after cranes
- Giraffe

Environmental Projects

- Air programs
 - Alternate fuels
 - Cold ironing, etc
- Mitigation credits = wetland restoration
 - Interactive game" *
- Brownfield redevelopment
 - Clean up contaminated sites
 - Productive use
- Healthy Harbor Program
 - Tenant education and assistance

Ballast Water = Invasive Species *

Air Particulates

Traffic Issues + why

- Distribution centers—24/7 questions, trade offs and other issues
- Might impact tourist destination image
- Alameda Corridor

Jobs/Economy

- 1 out of 12 jobs generated by 2 ports
- Other statistics

Breakwater—to be or not to be

- The real story
- Created habitat—before/after (Sea Grant Study)*

Trash exhibit

- Talking Trash*
- Where does it come from?

Sewers connected to oceans

Security Concerns

- Longshoreman walkout, ripple effect
- Include visuals ships down to Huntington Beach and beyond, etc

Port Presence attracts business

- Sealaunch exhibit*

Diversity of Community

- Diverse community—Ports—Worldliness

Breakout Session Summary: Our Ports and the Environment – Air and Land

- Brownfields—Ports clean up past sins
- Landfill—mitigation
- Land—use conflicts— commerce vs. residential/recreational

- Air
 - Diesel air toxins
 - Ships, trucks, trains, cranes, truck queuing
 - What can the ports do?
 - What can't the ports do?
 - What can state, federal government do?
- Pie chart showing size of problem with sectors (trucks, alternate fuels, cold ironing, other)
- Port programs
- Regulatory programs—state, federal
- MARPOL—international
- Multi-faceted problem needs many approaches to deal with it

Breakout Session Summary: Our Ports and the Environment-- Water

- Regulations have improved
 - 10-20 year baseline comparison
- It will never be what it used to be
- Ports as landlords
 - Responsible for activities within but also victims of upstream
- Exhibit of what port is doing better (i.e. surface runoff)
- Show the difference/improvement
- What is the extent of effects? Do we know?
- Specific examples of better/improvement
 - Least tern sites/birds in general
 - Shallow water habitat
 - Mitigation outside the ports
 - Inner channel (upstream) improvements
 - Past – hull cleaning upstream
 - Kelp/sea grass plantings
 - Pier 400 sea fans
 - Exhibit of fish that have come back; interactive
- What type of monitoring and what is it showing (trends)
- Hydrogeography of ports
- Invasive species
 - What is the issue?
 - What are the ballast water issues?
 - Things that have been done/happening to control this
 - Risk factors
 - Other sources?
- Dredging
 - Dredging over past years that have removed contaminated material

Appendix F

DeBono's Six Hat Thinking

Yellow Hat-- Optimistic

- Wakes people up to ports
- Collaboration
- It's doable
- Unique in CA and beyond
- Planning process
- Perceived value of Aquarium
- Highlights intersection of commerce, recreations and environment
- Commitment to honesty
- Well suited to wide variety of learning styles
- Volunteers have new opportunities
- It's fun
- It's dynamic
- It's inspirational
- *It's wonderful to have subject on table that needs to be talked about!
- Potential of attracting young people to profession
- Pride by local community in port
- Universal in appeal

Black Hat-- Negative

- Expensive— who pays?
- Space— lots of it
- Not enough fish
- Liability
- Won't change thinking of environmental activist
- Community activists will hate it
- Inferiority complex won't let it happen
- Press Telegram will hate it
- We didn't include labor, commercial interests
- Too unfocused
- Bad connotations about certain groups
- Biased to boys
- Could become port versus port
- Aquarium versus Maritime Museum
- Won't present the negative
- Self serving
- Obvious funding sources won't come through

Red Hat-- Emotional

- Lots of fun

- No beef
- No parking
- Great break from work
- We need to come back; we're not done
- My tie makes Lynne dizzy
- All didn't get to take boat trip
- We'll be frustrated by how long it will take
- Not all will fit into container
- Glamorizing growth and consumption
- Permits are the problem, not money

White Hat-- Objective

- Lots of work to do!
- We've only got the tip of the iceberg
- Really innovative interactive are tough (Ocean Institute in Dana Pt. is good example)
- Educational in comprehensive way
- Great resources here and on steering committee
- Lots of prototyping required
- How much will it cost?
- Homeland security and bureaucracy

Green Ha-- Creative

- Turn tanker into aquarium
- Build exhibit on a ship and take around the world
- Get George Lucas involved
- Include music, art, movies (contests for art, movies)
- Photo contests (for kids)
- Essay contests
- Speech contests
- State of art interactive (JPL)
- Time opening to major event
- Evening port tour/dinner
- Port overnight
- Sheraton Hotel in San Pedro cruises for Thursday night guests
- Recreate "Old San Pedro"
- Film festival
- Think about people unlike us
- Involve kids at every step
- Terminal tour at night
- Connect all the "points of interest". Treasure map
- Involve Homeland Security, Coast Guard

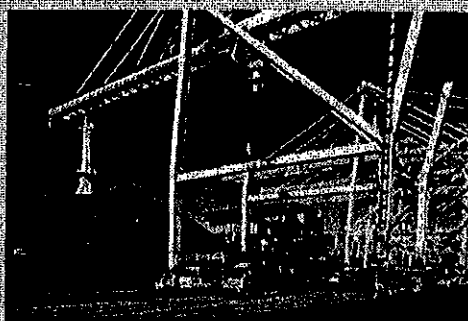
- Stress how much comes by ship...give comparison of one container ship contains more cargo than all freight carried by all 747s built by Boeing.
- Make it an experience— make memorable for all
- Make changeable, update, keep current
- Collateral materials are key
- Commission dance company, symphony, etc.
- Sister port exhibit
- Long Beach Smithsonian—traveling exhibit service
- Kids' day—knot tying, mentor day
- Underwater technology
- Make the facility "green"
- Walk away with something—take away—1 shoe each
- Own retail store
- New docent opportunities

Appendix G Exhibit PowerPoint Presentation

Created by Ed Mastro, Cabrillo Marine Aquarium

First Element

■ Setting the Mood for a Port Exhibit



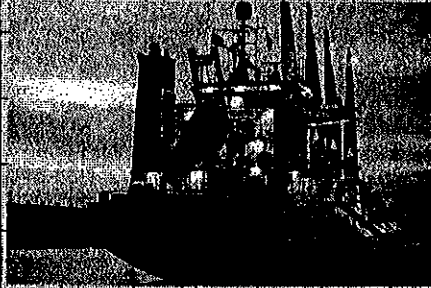
First Element – Setting the Mood

- Begin the Port experience with tangible artifacts
 - Allow public see/walk up/climb to stacked containers
 - Allow visitors see/climb into crane



First Element – Setting the Mood

- Begin the Port experience with tangible artifacts
- Continue visitor experience showing the Port at night
 - Utilize subdued lighting and sounds
 - Begin the experience as day begins and unveils Port activity



Entering the Port Exhibit

- Public enters the exhibit by moving into a container



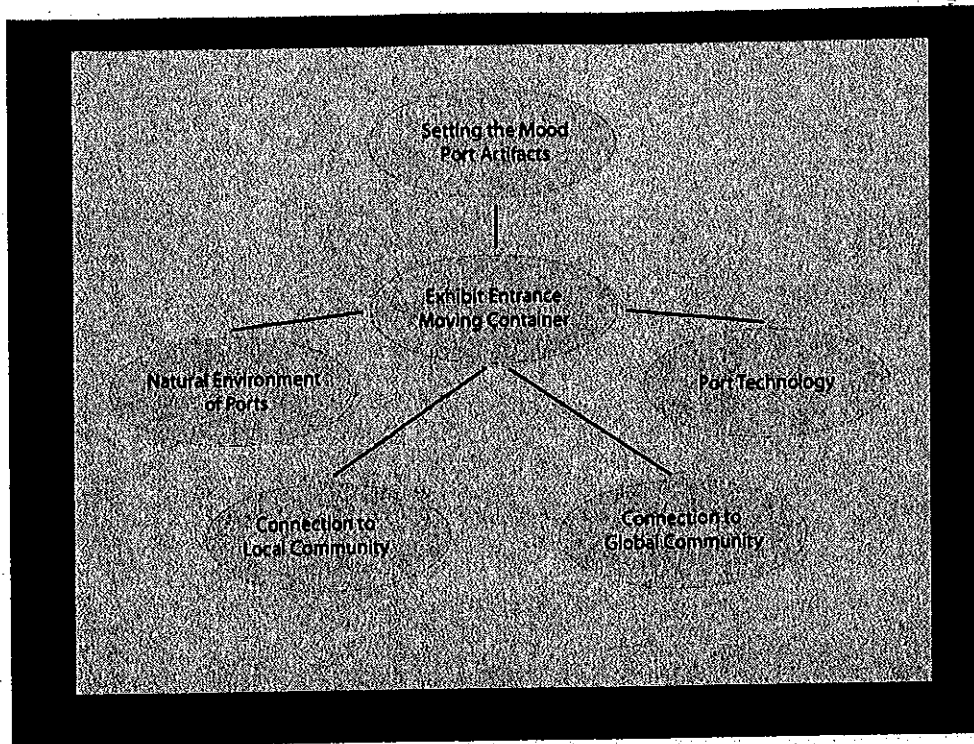
Entering the Port Exhibit

- Public enters the exhibit by moving into a container
- Video begins and container shakes to stimulate container being picked up by crane and loaded onto a truck



Entering the Port Exhibit

- Public enters the exhibit by moving into a container
- Video begins and container shakes to stimulate container being picked up by crane and loaded onto a truck
- From this point visitors can enter one of four "exhibit galleries."



Port Technologies

- Scale of Machines
- Moving Containers
- Interactive Game
- Kinds of cranes / tugs / lifts / etc.
- Navigate boats
 - Drive remote controlled boats
- Experiences of Harbor Master
 - Drive a boat without seeing sides
 - Climb a moving rope ladder

Connection to Global Community

International Commerce

Trace the movement of goods

Use Leather Baseball Glove as example

Use Steel for Cars as example

How much is imported

"Remove" Imported Items from a house

Use a barcode to scan common items

Economy of Ports Nationally and
Internationally

Connection to Global Community

International Commerce

Risks associated with Global Community

Increased Security

Increased chance of introduction of
flora/fauna/disease

Connection to Local Community

History of local Ports

How the Ports "Evolved" to meet change

Time-lapse Video of Port Development

Uniqueness of Ports - How they can grow

Making Ports by Landfill "Video"

Sims computer game

Cultures associated with the Port

"Visit" with historical workers in the Port

Connection to Local Community

History of local Ports

Cultures associated with the Port

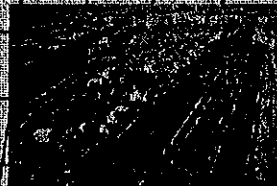
Effect of Ports to Local Economy

Amount of goods staying locally

Local Jobs that depend on Ports

Dollar contribution to local community

Moving Cargo Locally

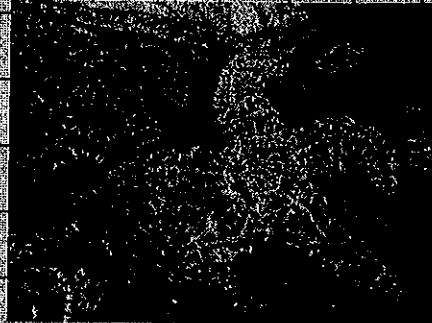


Natural Environment of Ports

Biota of the Ports

Kinds of wildlife –

Live exhibits



Natural Environment of Ports

Biota of the Ports

Environmental Issues

Water Quality - Improvements

Effectuated by local watershed

Return of shipworms

Air / Land Quality Issues

Habitat restoration



Appendix H

Information Sources and Other Port Exhibits

INFORMATION SOURCES

- *Mark Hershman – University of Washington
- Hank Marcus (MIT)
- Bob Kleist – Evergreen
- George Marshall - retired Sealand
- Marine Exchange of LA/LB Harbors – local – CSULB
- Books – Wilderness to World Port
- Tale of Two Ports
- Book by Oliver Vikery (colorful but not accurate)
- Harry Bridges Institute in San Pedro
- San Pedro Bay Historical Society
- Bill Olson (Died at 99...journal)
- Video of History of Naval Base by Port of LB
- Malcolm McLoan (?) on containerization
- The diversity of Port of LB
- Lets Go Visit The Big Ships - video
- Port pilot simulator
- TV series "The Great Ships"
- Monty Marcum – US Coast Guard
- KCET program on history of both ports "LA History Project"
- Legacy video of interviews on dock – CSULB
- Lloyds of London
- KY Logs
- Magellan, UPS – local
- Jet Propulsion Laboratory (worked with ocean institute to develop interactives)

OTHER PORT EXHIBITS

- **Odyssey Maritime in Seattle Washington
- Maritime Museum of San Pedro
- Children's Museum of Boston
- **Port Authority of Baltimore (?)
- Lego Land
- Maine Maritime Museum in Bath
- Mystic Seaport
- Victoria, BC (?)
- Port of Breemehaven
- Rotterdam
- S. Street Seaport (NYC)
- Cabrillo Marine Aquarium
- **Bay Models – SF, Chesapeake Bay

- Mariners Museum (Norfolk)
- Evergreen Transport in Taipei
- Tokyo Maritime Museum
- Astoria Oregon (Maritime Museum)
- Maritime Museum, Santa Barbara

**** = interactive**