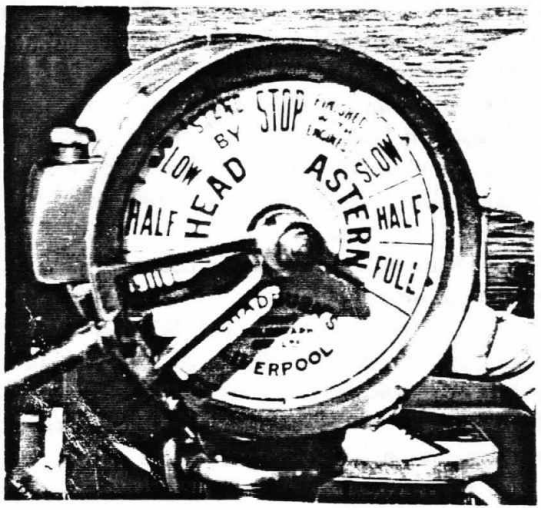
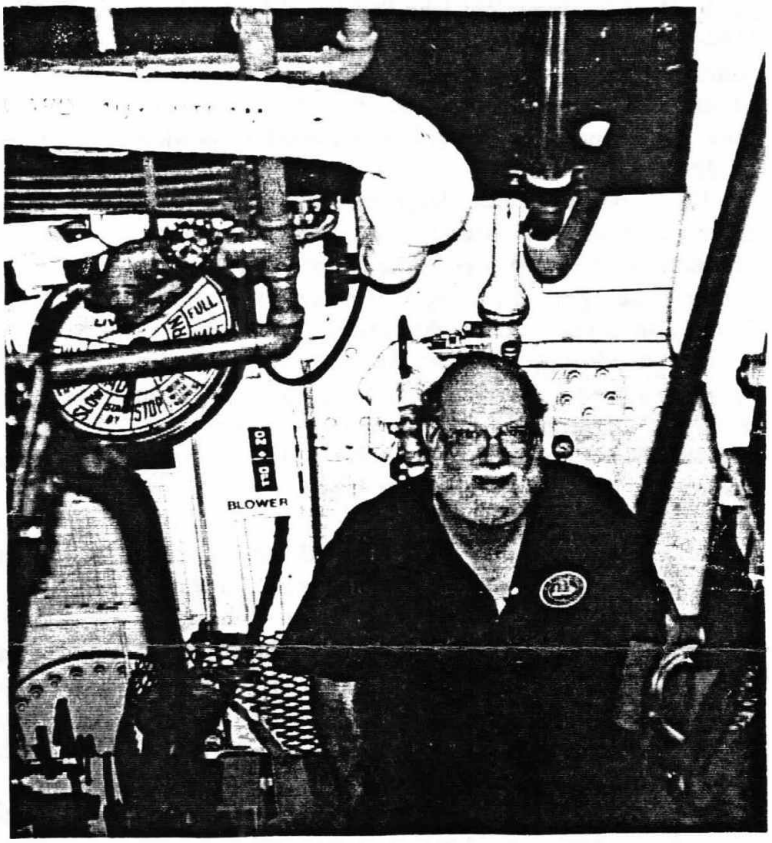
San Diego Ship Modelers' Guild

1306 N. Harbor Drive San Diego CA 92101

January 1999 NEWSLETTER Volume 23, No. 1

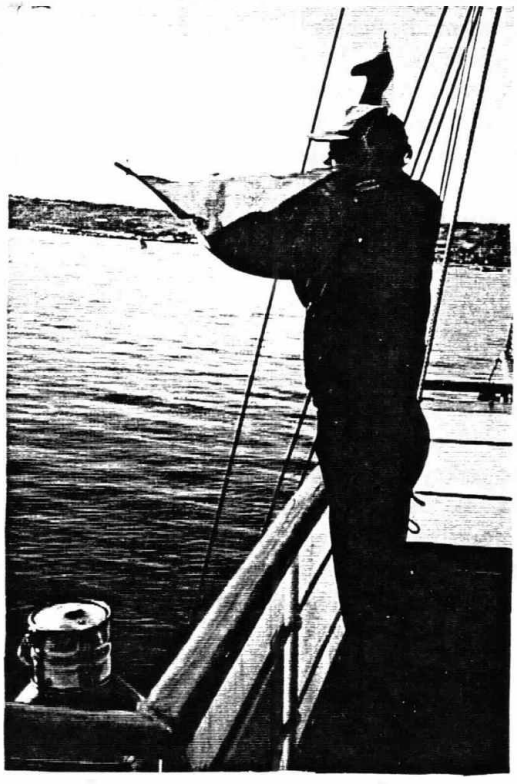




FULL AHEAD ON *MEDEA*

PAGE TWO

Below: *Helmsman Day, Capt. Goben, Piper Graham*
At Right: *Chief Engineer You-Know-Who*



What Fun It Is to Take a Cruise on Our Very Own *Medea*

If you want a San Diego Harbor cruise that's purely pleasant and soaked in history, get yourself aboard the Maritime Museum's *Medea* on one of her fortnightly noontime voyages to Shelter Island.

You'll be able to imagine yourself as William Macalister Hall of Torrisdale Castle, Scotland, who had *Medea* built by shipwright John Stephen of Linthouse in 1904. For the ship looks much as she must have at her launch, because the museum's super-conscientious painters have her varnished teak deck house, quarter-sawn interior paneling and bridge brasswork in flawless condition.

On a typical cruise, Bagpiper Bill Graham, an authentic Scotsman wearing the McIntosh tartan, entertains the 50 passengers before departure. Then, "Let go bow! Let go stern!" shouts Captain Rich Goben (who's also skipper of the *Star of India*).

The deckhands, including Joe Bompensierro's son Sal, respond, and *Medea* moves away from her berth beside the *Berkeley*. In the engine room is the many-talented Bob Crawford, who is both the museum's Curator of Models and *Medea's* Chief Engineer. He knows models and he knows steam.

At a stately 10 knots, her top speed, *Medea* plows across the harbor. Bob remarks that the double-expansion engine, with a high-pressure cylinder about 10 inches in diameter and a low-pressure cylinder about three times as big, develops just 254 horsepower, less than an average pickup truck's V-8. "This engine is not efficient," he says.

"Jolly Clever"

Nevertheless, a reciprocating steam engine is one of the most beautiful and unbelievable contraptions in the world of machinery, what with its valve cams and rods, and the Rube Goldberg reversing mechanism. On *Medea* passengers are allowed to go below and have a look. It's easy to envision some British milord doing the same thing while cruising off Gibraltar after World War I, when *Medea* spent several years in the Mediterranean. He'd say, "Jolly clever!"

Medea passengers are also invited to climb up to her open-air bridge – see the pictures on page 1. That's Captain Goben communicating by signal flag with a passing aircraft carrier, and Col. Merrill Day as the ancient mariner at the wheel.

In the harbor behind Shelter Island, *Medea's* anchor drops with a noisy rush of chain. In the charming dining saloon up forward, the docent crew sets out a lunch of pasta salad, roast beef and turkey sandwiches, cole slaw, sublime desserts and wine. As the yacht starts to return about 2 p.m., a southerly breeze comes up and she heels a bit. Docking keeps Crawford busy answering the bells of the telegraph's insistent demands for Slow Ahead and Half Astern and Stand By and STOP and finally Finished With Engines.

Medea's long career took her to many ports and many seas. Macalister Hall used her for shooting grouse around the isles and lochs of western Scotland. In world War I, bought by the French navy and armed with depth charges and an observation balloon, she looked – literally looked under the surface of the water -- for German submarines in the English Channel.

After her Gibraltar phase, and early in World War II, *Medea* deployed barrage balloons in the Thames to keep German bombers flying higher than they wished. Back in Scotland, she served as an accommodation ship for Norwegian commandos.

When the war was over, she again became a pleasure boat, and cruised off Cornwall and the Isle of Wight. In 1971 a rich American named Paul Whittier bought *Medea,* shipped her to Long Beach on the deck of a German freighter, and had her rebuilt in Vancouver, B.C. Then he donated her to the San Diego Maritime Museum, where she arrived on July 14, 1973.

A Chariot Drawn by Dragons

Medea is not small – she measures 134 feet in length, 17 in beam, 8 in draft and 143 in gross tonnage. Her first owner could have named her *Venus* or *Minerva* or something else nice but instead he picked the mythological figure who helped her husband Jason steal the Golden Fleece, then jealously killed his second wife, as well as her own children, and fled in a chariot drawn by dragons.

What can a Guild member do to merit a cruise on *Medea?* In general, says Joseph Ditler. Development Director of the San Diego Maritime Museum Association, the tickets go to people who have helped or can help the museum – for example, major donors, politicians, members of the media. Luckily, being a member of the association, as most Guild members are, counts as help. You can attend association meetings, buy raffle tickets for cruises, and very likely win.

Guild Notes & Announcements

GORDON JONES WRITES:

Members might be interested in just what is Britannia metal, the alloy that has replaced lead in shipmodel fittings, which eventually oxidizes away.

In "Mark's Mechanical Engineers' Handbook, 4th Ed." we read: "Pewter was originally an alloy of tin and lead containing not over 20% of the latter, but is now frequently replaced by an alloy of tin and antimony more commonly called Britannia metal. This is stable and less likely to tarnish. A composition now being produced in rolled form for working into decorative tableware and the like is 91% tin, 7% antimony, 2% copper. Tin is an important minor constituent of fusible alloys, bronzes, lead babbitts and type metals." – McGraw-Hill Book Co., 1941.

BOB CRAWFORD SEZ:

His model of the Scripps Institution's ocean-science ship *Roger Revelle,* pictured as a half-built hull in the December newsletter, is FINISHED. . . . The next meeting of the National Research Guild Committee will take place on Wednesday, Jan. 20 at Jack Klein's house, 7681 Golfcrest Drive. . . . Many volunteers will be needed for the chores associated with the lengthy visit of the *Endeavour* replica beginning Feb. 5 (see pages 7, 8 and 9). Phone the Volunteer Coordinator for the San Diego Maritime Museum Association (619-234-9153). No experience is needed; you'll get a quick lesson on what's expected of you and then serve on the *Endeavour* for a few hours at a time. . . . The January meeting of the Guild will be held on the *Berkeley* at 7 p.m. on Wednesday, Jan. 13.

Next Meeting

January 1999

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Bring new models, old models, models you've shown before, partly finished models and parts of models. The Newsletter will take photos and print them in the February issue.

Nuggets of Advice and Contrasting Models at December Meeting

Again in December, the Guild meeting was held in a setting that was nostalgically lighted and thick with the lore of ships and the sea: the dark-paneled main saloon of the *Star of India.* And again the time was divided into two topics: shop talk, unfocused but sprinkled with nuggets of ship-modeling advice, and a Show-&-Tell of surprising variety.

Shop Talk. Before he reminded himself that it was his wife's birthday and hastily departed, **Bob Crawford** amplified his earlier recommendation that model railroad stores have lots of parts to offer for ship modelers, particularly on the HO scale, which is about ¼" to the foot.

At Reed's Train Shop (8039 La Mesa Blvd. in La Mesa), you can bring in a part you want to duplicate – a cleat, for example. and then find it in an HO catalog. Reed's can order it on a Monday and deliver it on a Wednesday. "Use a micrometer and a little math, and the HO scale probably has what you need," Bob said.

He also said that, although the last work party was poorly attended, those who came profited greatly. "We got a helluva resource in our own shop, tailored for this group." he contends. The resource includes the *Berkeley* library, and Bob has a key to it.

The discussion shifted to appropriate scales for models, with Bob holding out for the 3/16" scale as the comfortable minimum and **Gordon Jones** warning against going smaller than "what your eye can see" in ship model parts, such as rigging lines. Bob agreed. "At what point does the obsession [for tiny detail] drive you nuts?" he asked "Build for satisfaction. Go only as far as you want to go."

In another gentle gibe at perfectionism, Bob cited a professional model-builder at the National Research Guild who refuses to build for the ages, saying that his "responsibility ends at delivery." But if that implies using cyanoacrylate glue, Bob demurs. It cures with a "violent chemical reaction that makes it crystallize and cease to hold." The Navy doesn't permit its use in models.

Similarly, "brass hates paint." Brass is inevitably coated with oil from fingers, and has to be pickled first, with a solution you can get from a jeweler, or maybe just vinegar.

More warnings: the Environmental Protection Agency, citing the danger of cancer, is restricting some old-standby glues and paints. Gordon returned some powdered Weldwood that he thinks has been altered. The old Floquil paints and Diasol solvent have been banished,

Continued on following page

A Viking-Style Nordlandsboten, a Hidden Sailor-Made, a Catchy Ketch and an Exquisite Frigate

Continued from previous page

but water-based railroad colors are taking their place.

Ernie Andrew declared that epoxy colors "stick real well." Bob Crawford made the point that old-fashioned hide glue – "essence of cow" – can fix furniture as well as Weldwood, and claimed that hot sandbags applied to hide-glue furniture joints a hundred years old can restore their strength.

Gordon said that something has happened to turpentine too – it's so bad he refuses to drink it for fear his hair will fall out. And that was the end of the shop talk.

Publick Notices: It's about time to pay your $15 annual dues again. Purser **Ed White** said that if you

From Model Guild News

come across with a check in January he won't deposit it until June.

Bob Crawford announed that he won't convene another National Research Guild Committee meeting until after the Jan. 13 meeting of the Guild.

First Mate **Doug McFarland** delivered a heavy, unexpected pang of sorrow to the group by announcing his retirement from the San Diego Ship Modelers Guild, beginning in 1999. He explained that he has had "modelers' block" for some time now, and wants to spend more time on his other major interest, astronomy. He will be missed, and so will the bar that he has provided on so many occasions, including this meeting.

But as he said farewell, Doug let loose a blast of criticism for the San Francisco National Maritime Museum (see the March 1998 issue of this Newsletter). Recalling a recent visit, Doug pointed out that you still can't go aboard the deteriorating paddlewheel tug *Eppleton Hall,* the giant tug *Hercules,* or the scow schooner *Alma.* The schooner *C.A. Thayer* still lacks one mast. Work on the huge ferry *Eureka* never seems to end. The square-rigger *Balclutha,* rebuilt earlier this year, is in good shape, but otherwise the Hyde Street Pier is a bit disappointing.

Jack Klein asked for help in acquiring a 2½" propeller for his model of the *Challenger* (see last month's Newsletter).

Show-&-Tell. **Lew Johnson** brought his *Nordlandsboten* -- Northlands boat. He writes, "This type of boat, from northern Norway, dates from the 17th Century. As a fishing boat it saw its most popular days from the 18th Century until the appearance of engine-driven fishing boats.

One curious feature is its after cabin, where, presumably, a freezing fisherman could get out of the wind. This required the helmsman to steer with a long tiller riding on the cabin top. So that he could steer hard right or left, the tiller was fitted with an elbow joint like many small modern sailboats

The numerous thwarts were probably not so much seats as structural beams, Lew thinks.

The hull is clinker-built from a Billings kit. The model measures 28" long and 6¼" abeam. Since the scale is 1:20, the actual ship was about 47'x10½'.

The ketch pictured here is a traditional Newporter out of Los Angeles, though not a copy of any existing yacht. As he has demonstrated with two earlier Show-&-Tells, **Jerry Deschenes,** a free spirit, likes to build models of boats that he imagines he'd like to own in full size.

In cross section, the spars are squarish and not round because, Jerry explains, they are squarish and not round. The deck house is divided at the mainmast to let the mast get its crosswise bracing from strong beams below the deck rather than from the light framing of the cabintop.

Gordon Jones grumbles that Jerry's design would leak a lot.

The ketch has an outside lead ballast, a propeller and a transparent hatch cover made from a Certs box. It's a great feel-good model.

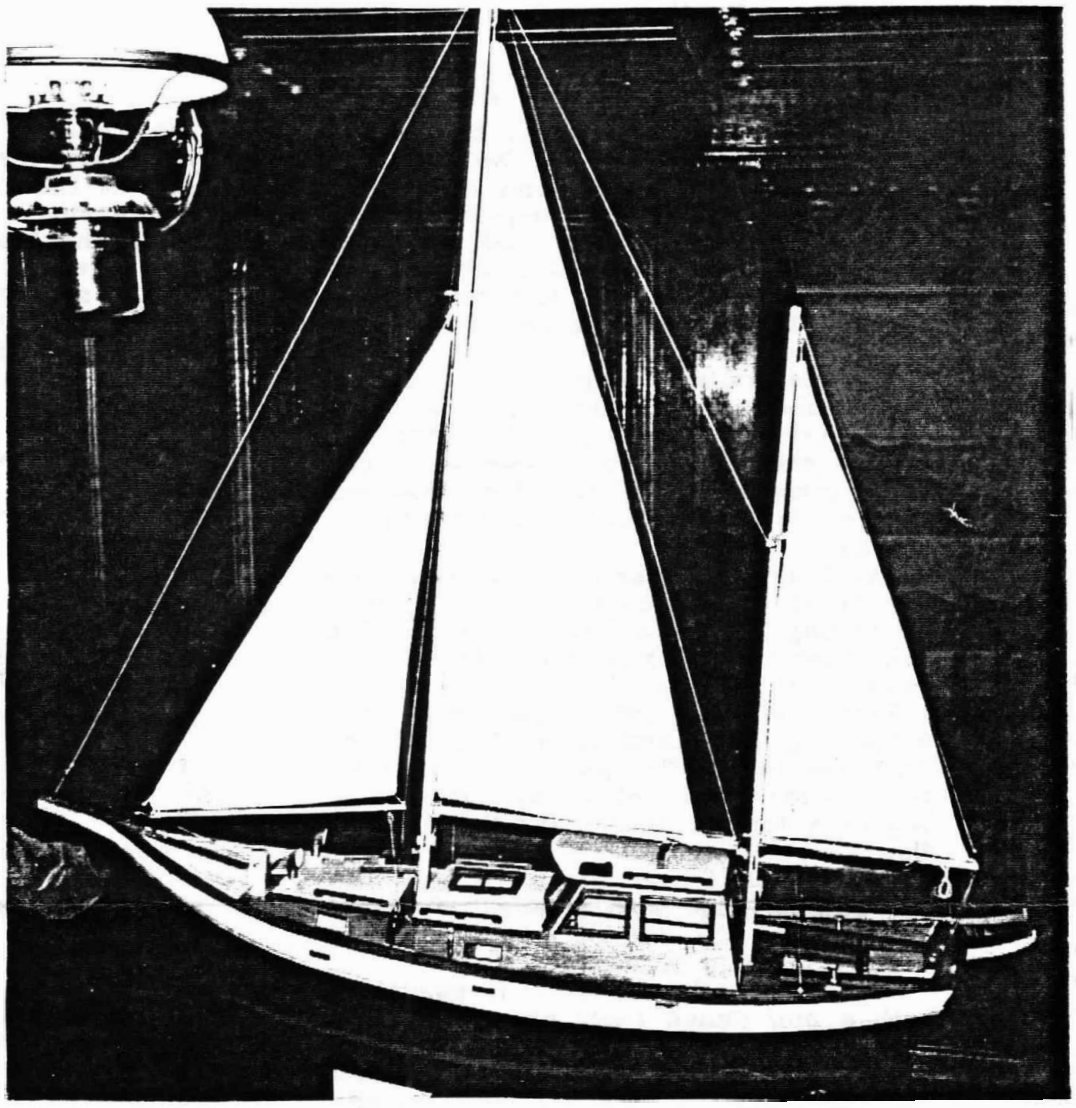
For his part, Gordon Jones brought a model-ship hull that comes with a fascinating bit of history: it was found hidden under bilge boards in the *Star of India* when Captain Ken Reynard was cleaning out the ship one day in 1973. Gordon was on hand and bought it with a $25 contribution to the Maritime Museum.

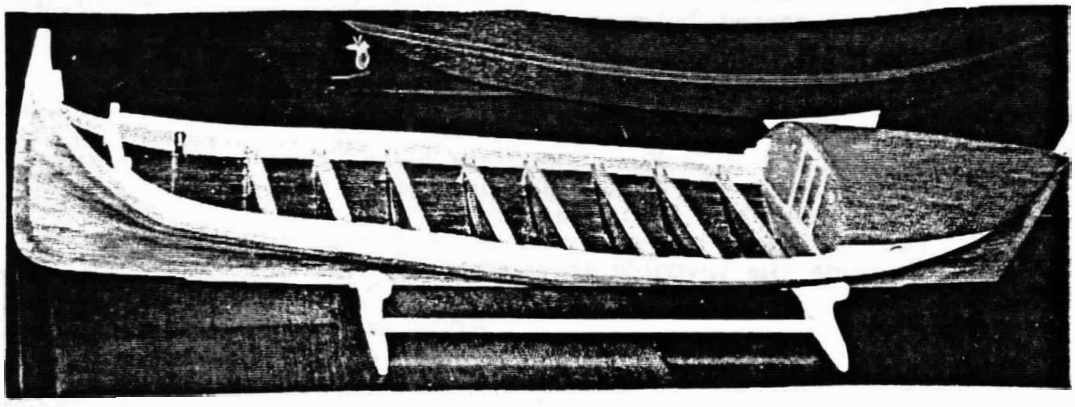
Carved from a single block, it seems to be a sailor-made model created without plans from the maker's observation and memory. The starboard rail curves considerably more than the port. Gordon speculates that it could be a downeaster from Maine, possibly the *Abner Coburn*, which sailed in Alaska until 1924 as a salmon packer for Libby-McNeil-Libby.

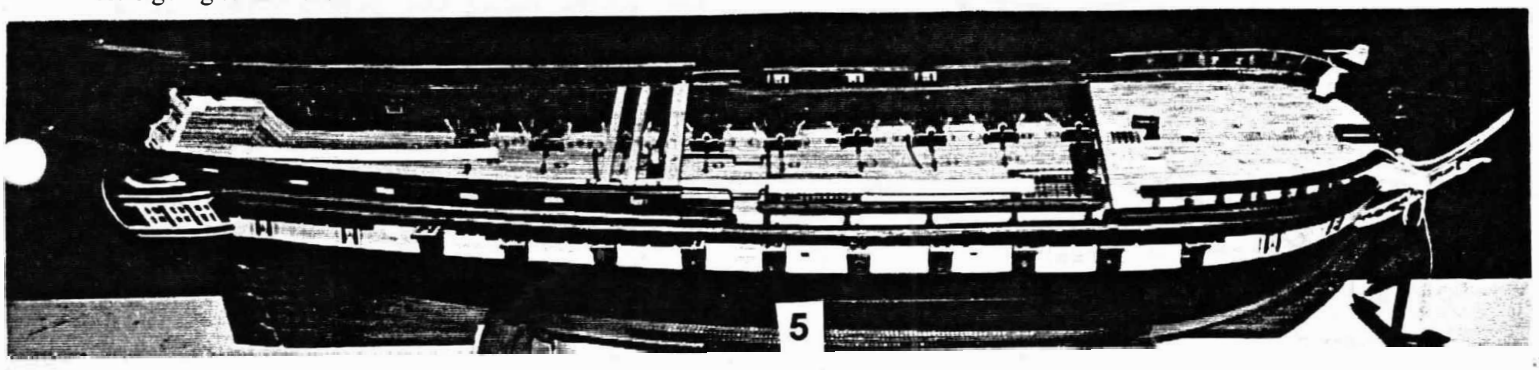
Gordon plans to finish the hull as the *Coburn*, meaning that it will carry three masts and represent a 200-ft. ship.

Royce Privvet keeps saying, "Don't finish a model that someone else started." That's how he found his *Essex* in 1981, partly built from a 1970's kit. For years he wondered, "Shall I work on it, or is it firewood?"

Now he's "bound and determined" to finish it, and doing an exquisite job. At the meeting, **Jackie Jones** admired the classic work that Royce has done of the *Essex*'s transom. He promises an article on the ship and its history for next month's Newsletter. Was the frigate in the War of 1812? He's going to find out.







Thru The Lubbers Hole

by Robert Hewitt

A number of members in our model guild have expresed interest in making sails for their models. The Ventura Model Guild news letter gave John Kreutzinger rave reviews on his rice paper sails. I phoned John and he was kind enough to send me a very detailed outline of his methods. John built his last model to a scale of 1/8", so dimensions given apply to that scale.

The materials: rice paper, pin, styreen pad, rubber cement, tea bag (Earl Grey Bigelo brand). colored pencil (Roseart bronze yellow), and four types of thread: sulky invisible (.004 thk.), bolt rope, fine thread for clew knots, and reef line thread.

Lay the rice paper over the sail plans and trace around each sail with a pencil adding 1/2"for a border. Cut out the sail. Save enough rice paper for reef bands and corners.

Pour hot water into a glass and add a tea bag. Let stand about 60 minutes. Pour tea into a flat pan, big enough to lay the sails flat. (ok to overlap) Soak the sails for six hours. dry the sails flat. Do not overlap.

Lay the sails over the plans and trace the outside edge with a pencil. Trim 1/8" beyond the outside edge. This will be the seam of your sail.

Place the sail on a styrene pad and with a pin, punch holes around the inside of the pencil line, spaced approximately 3/16" apart. Continue all around the sail. Turn the sail over and punch holes around the outside of the pencil line, staggered between the inside holes.

Lay a long piece of bolt rope thread (enough to go around the perimeter of the sail). Using the invisible thread. Sart from one end and stitch the bolt rope to the sail. Work along the pencil line, through the punched holes, going in the direction that they were punched. The punched holes form a slight funnel to guide the invisible thread through the sail.

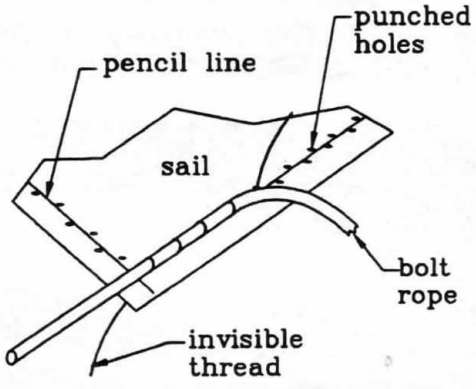


fig 1

Continue to thread the bolt rope until you reach the first corner. To make a clew at the corner, loop the bolt rope over a small brad and tie a knot between the brad and the sail, using the fine thread. Cinch the brad and knot to the sail and apply a drop of cyano to the knot. Continue stitching along the sail and making clews at each corner. You may also want to add cringles along the way.

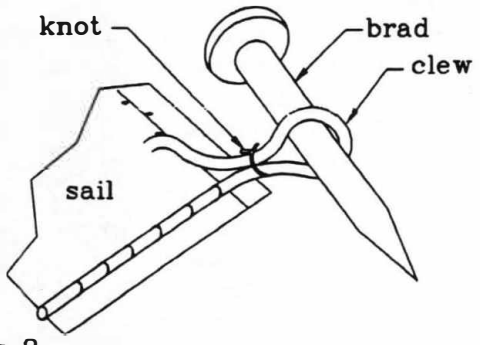


fig 2

Continue stiching and making clews at each corner until you are at the corner where you started. You will have two loose ends of bolt rope. Using the brad, each end will go over a brad and lay back into the fold of the sail. Tie a knot around both clew ropes with the fine thread and place each end under the sail, one in each direction from which it came.

Tie off the invisible thread at each end with a knot and trim at each end.

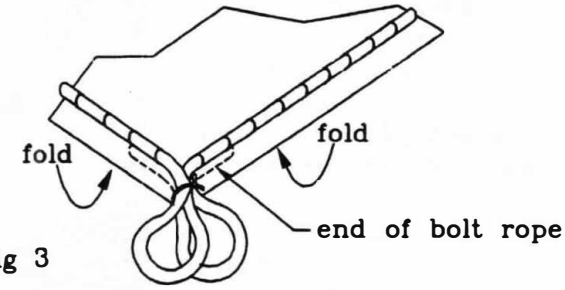


fig 3

Flip over the sail and fold back all the seams along the pencil lines. It is desireable to have overlap at the corners. Begin gluing at the double clew end and fold the two seams over the two ends of the bolt rope. Apply rubber cement to the inside of the seam. Make sure you have enough cement. Any extra cement that goes on the exposed area of the sail will dry and dissapear.

Using the colored pencil and a straight edge, draw the simulated seams on both sides of the sail. Make sure they line up. Any misalignment will be visible. Stop the lines at each seam.

Next add the reef bands. First cut out strips from the stained rice paper. Put rubber cement on one side and attach it to the sail in the appropriate position on the sail. Trim the excess just inside the bolt rope. The strips will cover the colored pencil seams and the outer edge seams. Add reef bands to both sides of the sail.

To add the reef points, lay the sail on the styrene pad and using the pin, punch holes in the reef bands, between each of the colored pencil seams. Select the reef line thread and cut pieces 9" long. Tie a knot in the middle of the line. Feed the line through a reef point hole and snug the knot against the reef band. Start a knot on the opposite side of hte sail. Use the pin to work the knot up to the reef band. Remove the pin and give a final tug to snug the knot against the reef band.

When all the reef lines are in, trim them to the correct length Glue the reef lines to the sail using the rubber cement.

If your plans call for corner lining, you can cut them out of the stained rice paper and glue them to each side of the sail.

Good luck and good modeling.

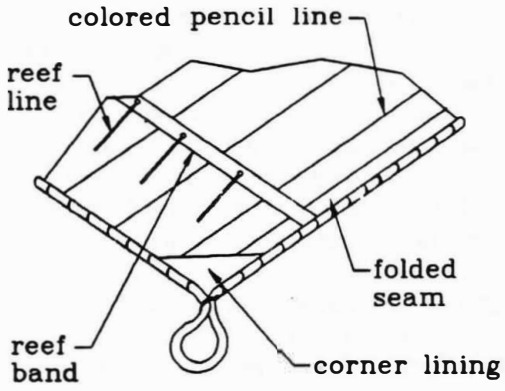
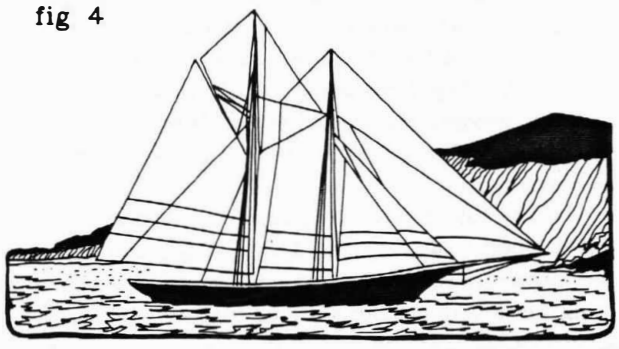
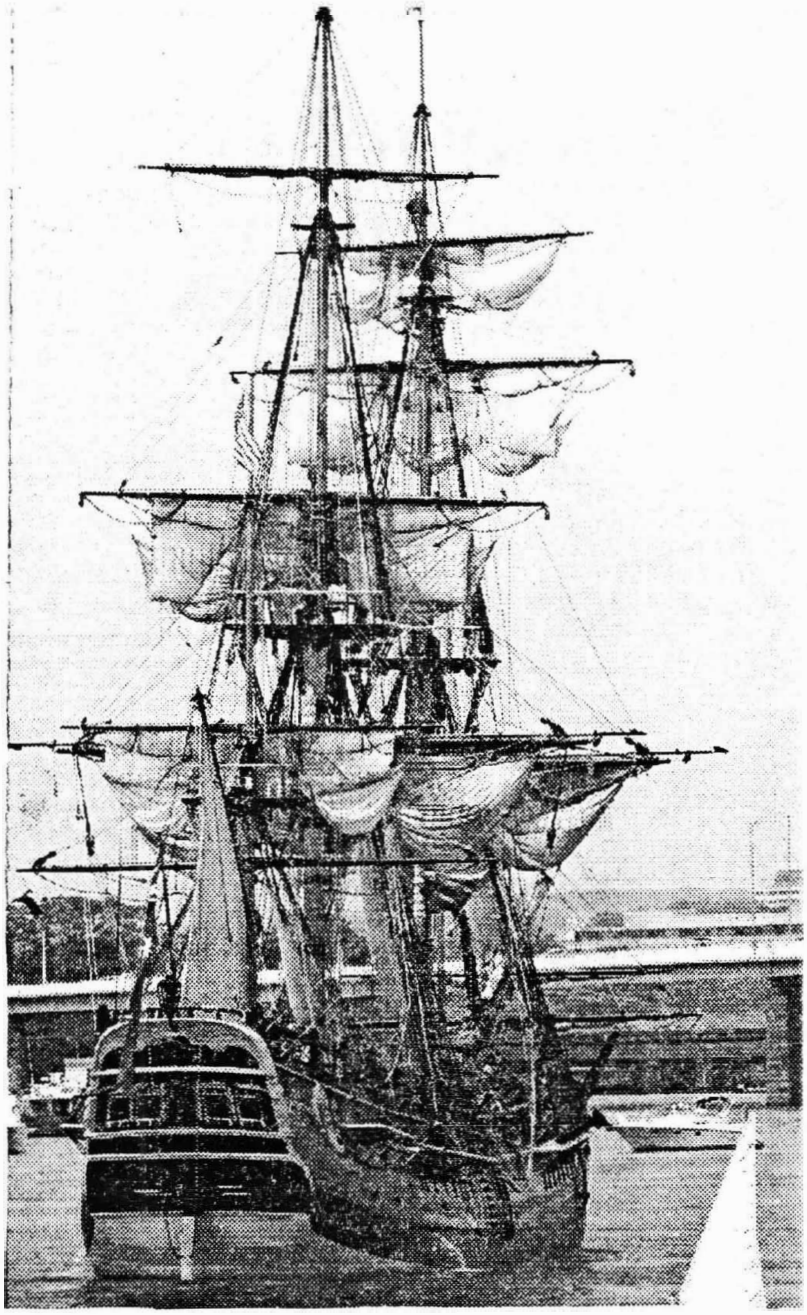


fig 4





ENDEAVOUR REPLICA STATS

Rig	**Three-masted bark**
Length	**109'**
Mainmast	**128'**
Tons	**366**
Engines	**2 diesels**
Sails	**17**
Blocks	**400**
Cannons	**4**
Crew	**17 professional, 35 amateur**
Cost	**$13 million**
Launched	**1993 in Fremantle, Western Australia**
Plans	**London National Maritime Museum**
Admission	**adults $10, children $5, senior citizens $8**

For an article on the ship's history, see page 8.

Endeavour REPLICA TO ARRIVE IN SAN DIEGO ON FEB. 5

She was the Ship That Put Australia on the Map

In the most exciting historic-ship visit to San Diego in years, H.M Bark *Endeavour,* a copy of Captain Cook's exploration ship that's being called "the finest replica ever built," will tie up on Feb. 5 on the Embarcadero near the ferryboat *Berkeley* for a stay that will last until April. She comes here, after sailing nearly around the world with stops in South Africa, the United Kingdom and many East Coast U.S. ports, from Fremantle, Australia, where she was built in 1993.

Australia reproduced this gallant ship for a completely fitting historical reason. It was the original *Endeavour* that in 1770 tore away 2,000 years of mystery and ignorance about that continent and ushered it onto the stage of Western civilization.

It's often said that Columbus or Magellan proved that the world is round, but the geographers of ancient Greece knew this fact perfectly well. They could see the curved shadow of Earth on the moon during eclipses, and watch ships' masts go down over the horizon.

They were also smart enough to theorize that the mass of land in the Northern Hemisphere probably had to be matched by undiscovered land in the Southern. On their maps they sketched a huge continent centered on the South Pole and running north to the equator, and called it, in Latin, Terra Australis Incognito – Unknown Southern Land.

Church Declares Earth Flat

In the early Middle Ages, the Church in Rome, overruling science, declared that the Earth was flat and that the concept of a Terra Australis was anathema. Not until the Portuguese explorer Bartholomew Diaz rounded the Cape of Good Hope in 1478 and Ferdinand Magellan rounded Cape Horn in 1520 did Terra Australis reappear on maps – though still totally Incognita.

The actual discovery of the continent was a story like that of blind men learning about an elephant by feel.

Luis Vaez de Torres, a Portuguese-Spanish navigator who set out from Peru, was probably the first European to get a glimpse of Australia, in 1606. He reached the eastern end of New Guinea and sailed through the dangerous, narrow strait between that island and the northernmost point of the Australian continent. But Spanish authorities suppressed Torres' report, and only in 1792 was the strait finally named for him.

More than 100 years after Torres, Dutch navigators, sailing out of their East Indies colonies, began to look for Terra Australis. They discovered bits and pieces of the western Australian coastline.

In 1642, the Dutchman Abel Tasman reached the island off south Australia now called Tasmania, and went on to the South Island of New Zealand. He thought that what he saw was the western extremity of a huge Terra Australis extending thousands of miles to the southern tip of South America.

Steering north and then west to Batavia, Tasman, the greatest of the Dutch navigators, became the first explorer to circumnavigate Australia and prove that it was an island. He simultaneously disproved the ages-old Greek theory that Australia would have to be connected to Antarctica (though Antarctica itself was not found until 1820).

Where the Yahoos Came From

Four decades later, an English buccaneer named William Dampier thoroughly explored a stretch of the western Australian coast and, says the "Oxford Companion to Ships and the Sea," wrote of "the aborigines he met there in words which later inspired Jonathan Swift in his description of the Yahoos in *Gulliver's Travels."*

That was about where knowledge of Australia stalled until the *Endeavour,* and Captain James Cook (1728-79), came into the picture.

Yorkshire-born Cook, good at math and navigation, started out in merchant ships, then switched to the British Navy. He was part of the expedition that attacked French forces at Louisburg on Cape Breton Island, leading to the British conquest of Quebec and later all of Canada.

He then spent eight years charting the St. Lawrence River and the coast of Nova Scotia and Newfoundland, culminating in an observation of an eclipse of the sun in 1766. His calculations of this event brought him praise from the Royal Society, and he thus became the British Admiralty's choice to command an expedition to Tahiti and record observations of a transit of the planet Venus across the face of the sun.

At this point, the Admiralty said, in effect, "While we're in the South Seas, let's find Terra Australis Incognita," and expanded the mission accordingly.

A Stoutly Built Coal Carrier

For his ship, Cook chose one of a class called Whitby colliers, strongly constructed at that shipyard to be able to carry coal. A 366-ton bark, she was given the navy name of *Endeavour.*

Cook sailed from Plymouth in August 1768 and eight months later reached Tahiti, proud that because of his insistence on feeding his crew sauerkraut and lemon juice not a single sailor suffered from scurvy. He had no chronometer, but he did bring along an astronomer

Ancient Greek geographers knew there had to be an Australia. A couple of centuries ago the Endeavour *finally boxed it in.*

named Green who could calculate longitude quite accurately by measuring the angle between the moon and a fixed star.

The transit of Venus duly recorded, Cook sailed from Tahiti, which lies at 20 degrees south latitude, to 40 south. There he encountered long swells which told him that open sea, rather than Terra Australis, lay further to the south. He turned west, and in October 1769 reached the east coast of New Zealand. Rounding the islands, he went through the strait between them which now bears his name, and proved that Tasman was wrong in assuming the South Island to be part of a huge, eastward-stretching continent.

Still, Tasmania was the solidest discovery until then in what's now Australia, and, taken together with the Dutch landings on the west coast, the area was now being called New Holland. Cook decided to investigate New Holland, beginning by cruising what he presumed to be its south coast. Instead, on April 21, 1770, strong southerly winds pushed him north and he found himself following the east coast.

Joseph Banks and Botany Bay

Soon he found an inlet whose shores were covered by many varieties of strange plants. Joseph Banks, the expedition's official botanist, dubbed it Botany Bay, and it was soon to become the first of Britain's infamous convict settlements in Australia.

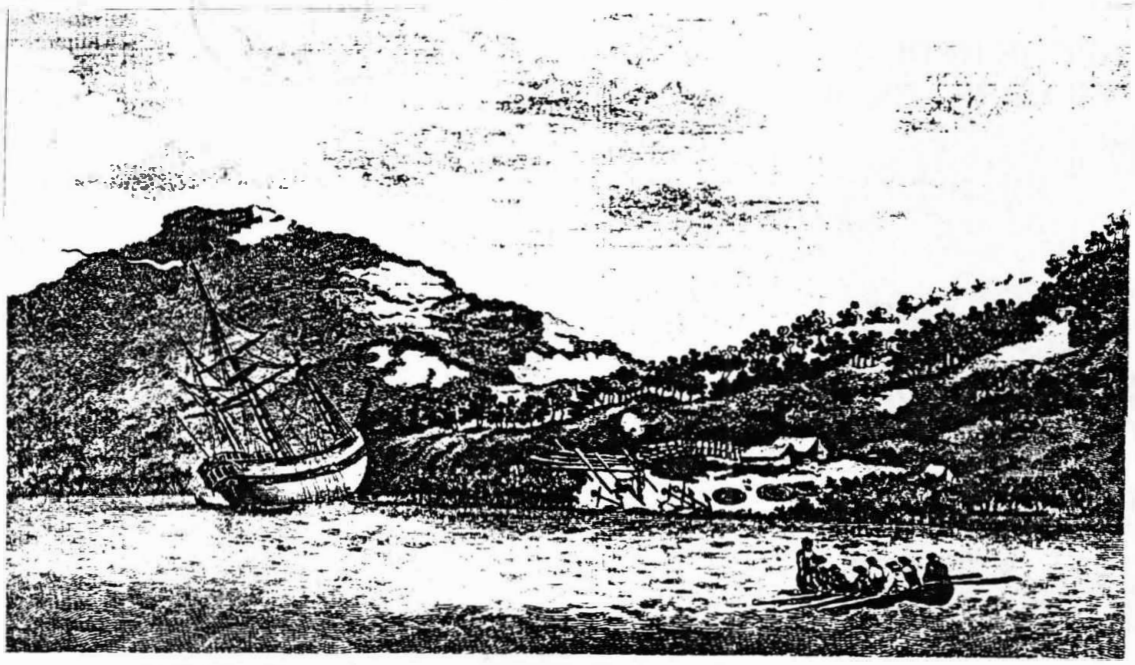
In July Cook found himself on the shore side of the Great Barrier Reef with steadily diminishing sea room, and before long he crashed into a coral reef. Careened on shore, *Endeavour* spent a month in repairs. Captain Cook decided prudently to sail outside the reef, where at once he almost went aground again and decided prudently to resume sailing inside.

Finally Cook reached the northern cape of Australia where, unknown to him, the Portuguese de Torres had glanced over his shoulder at Australia 164 years earlier. Then *Endeavour* headed for refitting in Batavia.

There, tragedy struck. An epidemic of malaria and dysentery killed astronomer Green, several ship's officers and a number of the crew. Cook set sail for England, arriving eight months later on July 12, 1771.

Endeavour was deemed worn out, though she later served as a whaling ship and ultimately sank off Newport, R.I. The next year, Cook returned to Terra Australis in *Resolution* and by sailing zigzag on long stretches of latitudes south of Australia he finally made it clear that no such huge continent existed

In this and later voyages through most of the 1770s, Cook constantly cruised the Pacific, while on the continent to his east Americans were fighting and winning their Revolution against England. Cook discovered or visited most of the great ocean's islands – the Marquesas, the Societys, the Friendlys, the Cooks, the New Hebrides, the Sandwiches (his name for the Hawaiians). And in the Hawaiian Islands, in 1779, he was stabbed to death by natives he had angered in an argument over a stolen ship's boat.



The Endeavour *being repaired after grounding on the Great Barrier Reef; engraving from Cook's* Voyages, *late 18th century*

Just what did this ship do to win its place in history?
P. 8

ENDEAVOUR REPLICA ARRIVES HERE FEB. 5

San Diego Ship Modelers Guild
1306 N. Harbor Drive
San Diego CA 92101

Fred Fraas
/redacted/

98

SAN DIEGO SHIP MODELERS GUILD

Officers for 1998

Guild Master	K.C. Edwards	/redacted/
First Mate	Doug McFarland	/redacted/
Purser	Ed White	/redacted/
Log Keeper	Open	
Newsletter Editor	Bill Forbis	/redacted/

Founded in 1971 by Bob Wright and the late Russ Merrill

SCHEDULE OF ACTIVITIES

Meetings	Second Wednesday of every month. 7 p.m. social, 7:30 p.m. meeting. Held on board the ferryboat *Berkeley*.
R/C Operations	Saturday mornings at the Model Yacht Pond (Mission Bay).
Annual Regatta	Third weekend in June.

MEMBERSHIP

Dues are $15 annually ($7.50 after July 1.

We strongly encourage all to join the San Diego Maritime Museum as an expression of appreciation for the facilities provided for our benefit.