This is the third and final CYS paper on the restoration of the 126 foot American-built 1901 steam yacht CANGARDA. The author takes us through the philosophy of the restoration, the launching, and the pains taken to reuse original materials. Highlighted are the new electrical and computer-based boiler and engine management systems and the work to meet current-day USCG and ABS requirements.

The 1885 CORONET, the last grand American yacht, is in the early stage of executing a restoration strategy introduced in CYS 2008. Jeffrey, the project leader, describes setting up of the new steel-framed restoration shop, the effort to acquire sustainably grown mahogany and the start of restoration of the hull and interior.

About the Author
After being laid off from his warehouse job in New York City at the age of 20, Jeffrey Rutherford spent a year sailing in a workboat delivering grapefruit around the Caribbean. Watching men build boats on the beach with little more than a handsaw, a hammer and an axe, Jeffrey decided he wanted to try boatbuilding. He went to Maine in 1976 and apprenticed at the Northend Shipyard rebuilding a 95’ passenger schooner. He returned to California where he was born, and after being a union shipwright at Pacific Drydock, he took a job as construction foreman at Pacific Fishboat Co. building a 75’ wooden fishing boat. In 1982, after several years of freelance boat repair dockside, Jeff started Rutherford’s Boat Shop in Richmond CA. The shop specializes in building and restoring classic yachts and general marine woodworking. Some notable projects include the 53’ Edson Shock cutter BRIGHT STAR; the 58’ N. G. Herreshoff P-Class sloop JOYANT; a 4-oared lifeboat for the square rigged ship BALCLUTHA; and an L.F. Herreshoff Buzzards Bay 14.

Over the past 20 years Fairlie Restorations have undertaken the complete restoration of many famous classic yachts. Much of the work we have done in these years has been on composite racing yachts from the first two decades of the last century; as it was the height of technology of the time the composite structure (wood planking over a steel skeleton) was favoured for high performance racing yachts. This paper describes the work undertaken during the restoration of two such yachts, MARIQUITA (1911) and LULWORTH (1919).

About the Author
Paul Spooner graduated from the school of Naval Architecture at the University of Newcastle upon Tyne in 1995. After sailing dinghies at school he began sailing larger craft in 1992 and has sailed extensively on many large traditional sailing craft from yachts to square rigged ships. As a naval architect, he has worked for a number of companies from small production yacht builders to high-speed passenger craft & modern superyacht designers, most notably the 700ft, three-masted barque, TENACIOUS, built for the Jubilee Sailing Trust and operated for physically handicapped crews. The last ten years have been with Fairlie Restorations where he is now a director and senior naval architect. During this time he has worked on the restoration of many famous classics as well as completely new design and build yachts and naval architectural consultancy.

The author and partner took a 41 year old Fredrick Geiger ketch on a sail to the Caribbean. The paper provides highlights of the experience living on and sailing a classic vessel starting with preparations for the voyage, then tracing the adventurous path down the US east coast with several laps around the Caribbean Sea before triumphantly returning to the US in better shape than ever. From a major structural refit in Venezuela, to losing the original wooden rig and building new in Antigua, APSARA has been an on-going project and they had to learn how to accomplish maintenance and repair work in foreign ports. The paper gives anyone planning or dreaming of cruising a classic sailboat a fresh perspective on the hard work and mostly positive realities of voyaging on a wooden sailboat today.

About the Author
Kaj Huld is a licensed mechanical engineer and traditional boat enthusiast. He has lived on sailboats since graduating from college in 1992. With little initial knowledge or skill, Kaj took on increasingly ambitious wooden boat projects. Kaj and his partner Marla Linder sailed APSARA from 2001 to 2007 to Caribbean and South American ports winning the “Concours D’Elegance” for owner maintained classic at the 2006 Antigua Classic Regatta. The couple’s adventures were written up in 3 separate Cruising World Magazine articles. During the cruise Kaj studied yacht design and has put together several detailed classic boat plans. Kaj has since opened his own engineering consulting firm specializing in energy reduction for commercial, institutional and industrial buildings. He continues

In 2002, the Maryland skipjack, a member of the last commercial sailing fleet in the United States, was added to the list of America’s Eleven Most Endangered Historic Places. It is estimated that over 1000 skipjacks were built. Today only 36 survive. Of those, less than 10 are still licensed to actively dredge. This is the story of the skipjack LADY KATIE.

About the Authors
Captain Scott Todd is a 5th generation Chesapeake Bay waterman and a lifelong resident of Cambridge, MD. His interests include building and racing pond yachts. He also enjoys sailing on classic yachts. Sara Letteleir, Scott’s better half, helped co-author this paper.
SATURDAY, APRIL 10: PRESENTATION #6 – SPEEDBOAT DESIGN AND DEVELOPMENT IN PRE-WAR AMERICA

This paper discusses the early years in the development of the powerboat, specifically the evolution of hull shapes in pre-war racing boats. From the beginning of the twentieth century to the advent of the Second World War, the revolutionary design changes and technological milestones achieved are arguably the greatest in any period of powerboat racing. Originally powerboat hull design had been subject to the concept of relating speed to waterline length. Similar to the sailboats of the time, long, lean canoe-shaped hulls ran through the water. The 60 foot long STANDARD of 1903 would become the blueprint from which high-performance hulls developed when it reached 22mph. Over the next thirty years, top speeds increased from DIXIE 2’s 38mph in 1909 to over 124mph by Gar Wood’s MISS AMERICA X in 1932. Designs evolved from the displacement-type hull shape to the beginnings of the planing hull and soon single- and multiple-stepped hulls changed the face of boat design forever. The introduction of the three-point hydroplane hull created a paradigm-shift in design that has continued to affect high-performance boats of today.

About the Author
Keith Brown is a sailor, wooden boatbuilder and restorer, and graduate of the International Yacht Restoration School. He has written and spoken about vintage raceboats, with a focus on the Gentleman’s Raceboat Era and pre-war powerboats. He is currently building a 1934-era Hacker-designed hydroplane.

SATURDAY, APRIL 10: PRESENTATION #7 – THE RESTORATION OF THE HMCo NEW YORK FIFTY SPARTAN

This paper describes the restoration of the Herreshoff “New York Yacht Club Fifty” SPARTAN between 1981 and 2009 by the firm MP&G of Mystic CT and its predecessors, along with the assistance of a very large number of subcontractors.

About the Author
Ed McClave is a partner in the boatbuilding and restoration firm MP&G in Mystic. CT. He and Ben Philbrick began their restoration of SPARTAN in 1981. They were joined by Andy Giblin in 1987. Ed has been a member of SNAME since 1989.

SUNDAY, APRIL 11: PRESENTATION #1 – THE RESTORATION OF NELLIE: A NONTRADITIONAL APPROACH TO PROJECT MANAGEMENT YIELDS A BEAUTIFUL RESULT

This paper explores the real-world experiences and opportunities afforded the authors in their two-and-a-half-year restoration of NELLIE a 1903 N. G. Herreshoff 35-foot class racer/cruiser. Attention is given to how the project benefited from the addition of a restoration manager. By setting design standards, establishing clear lines of communication, use of independent contractors and outsourcing of higher-ticket items the project completion was accelerated and brought well within budget.

About the Authors
Jeff Boal and Fernando Alva have been fast friends since they met over a croquet mallet and bottles of red wine. They have been champions aboard Jeff’s former Concordia- FEATHER. Prior to owning FEATHER Jeff built HONEYDEW, a Haven 121/2. Jeff is the President of PlowShare Group a social issue marketing firm based in Stamford, CT and is a member of the Stamford Yacht Club. Fernando is the Chief Operating Officer of the Connecticut division of T. Edward Wines of New York, NY and is a member of the New York Yacht Club. Wayne George is a trained engineer who spent 15 years working for McDonnell Douglas Aerospace. He has also worked with Team Prada for both the 2000 and 2003 America’s Cup campaigns. He is currently the proprietor of FL Woods and sails SKYE, a 1956 Concordia yawl. Wayne lives with his family by the boatyards in Marblehead, MA.

SUNDAY, APRIL 11: PRESENTATION #2 – CHOOSING WOOD FOR YACHT BUILDING AND RESTORATION

Historically boatbuilders in Europe and North America made use of local woods for construction; but over time local forests were depleted and nations widened their search for suitable timbers – eventually travelling thousands of miles to procure woods with unknown properties. By trial and error certain woods, such as mahogany and teak proved their worth as yacht construction materials. Now, these and other well-known boatbuilding woods are becoming scarce on the world market, or are only available as exotics.
growing on foreign soil, often with inferior properties. This paper examines the issues of wood quality for boatbuilding purposes and discusses the salient wood properties that yacht builders and restorers need to know in order to intelligently search out developing, often cryptic, sources of well-known and new boatbuilding timbers from sustainably managed sources.

About the Author
Richard Jagels graduated from SUNY College of Forestry at Syracuse with a B.S. in wood anatomy and M.S. in forest pathology and then went on to the University of Illinois where he received a Ph.D. in structural botany. He began his academic career at the University of Alberta in 1968. After stints at the University of Vermont, Dartmouth College and Louisiana State University he began writing a wood technology column for WoodenBoat magazine that has now been continuous for 32 years. When not messing about in or fixing up small boats he spends his free time sitting in boats and wetting lines, hoping for “the big one”.

SUNDAY APRIL 11: PRESENTATION #3 – RESTORATION WITH EPOXY

The validity of any construction or restoration approach is measured by its endurance over time. Understanding the characteristics of wood as an engineering material and the use of epoxy for restoration and rot repair together with observing existing examples teaches us what works and what does not. A combined body of data, generated both in laboratories and in real world settings exists and can serve to guide us to produce structures that have greater reliability, fewer maintenance issues and longer life spans. Case studies of restoration projects that have stood the test of time on carvel planked hulls are presented along with observations of laboratory studies that can guide us to further improve on these projects.

About the Author
James R. Watson is a licensed captain and lifelong boating enthusiast. He currently owns and operates a sailing sharpie and a power catamaran. He has built most of the 30-some boats he has owned over 50 years of boating. He has had numerous wooden boat repair and restoration articles published in various trade magazines. He has worked for Gougeon Brothers, Inc. for forty years.

STORYBOARD & BACKUP PRESENTATION, APRIL 10 & 11 – REVIVING THE HERRESHOFF NEWPORT 29 CLASS

On August 2, 2008 IOLANTHE was launched in Brooklin, ME, the sixth boat in the historic Herreshoff Newport 29 Cruising Class, and the first new boat to be built in 49 years. The paper reviews the history of the class and the reasons for its revival more than nine decades after it was designed by Nathanael G. Herreshoff. It explores the reasons that IOLANTHE was built and how and why Herreshoff’s original design was adapted to modern cold molded construction instead of the original plank-on-frame. It further discusses the emerging movement of which IOLANTHE is a part, in which many historic Herreshoff classes and one-off designs are being revived with faithful replicas of the historic design. Many of these boats are being built with modern construction materials and techniques, almost a century after the original boats were built by the Herreshoff Manufacturing Company.

About the Author
Bob Yaro has sailed all of his life, mostly on classic Herreshoff designed boats. He lives with his wife, Susan, in Stamford, CT, where IOLANTHE is home ported. He is an urban planner in New York City and a professor at the University of Pennsylvania.

STORYBOARD – RESTORATION OF HERRESHOFF STEAM LAUNCH #227 VAPOR

Built by the Herreshoff Manufacturing Co. in 1902, the 30-foot steam launch VAPOR has been in the care of the owner’s family for over fifty years. In 1994 VAPOR was sunk at her dock by an errant powerboat and is now undergoing a major multi-year restoration. In this first report of the project the author discusses the boats long history; the extensive pre-restoration research to document the boat and differentiate between the VAPOR as designed as she exists today; the restoration plan that was developed based upon that research; and the restoration progress through 2009.

About the Author
Ed Louchard has had his own workbench since the age of five. His father taught him to use many different tools, in many different mediums. In 1970, he studied for a short time under Alex Weygers, a master blacksmith, toolmaker and sculptor, who had a great influence on his life and career. Ed has owned and operated a yacht restoration shop since 1981, after graduating from the Northwest School of Wooden Boatbuilding. As well as restoring many antique and vintage craft over 28 years, Ed built the SALISH STAR, a 27’ 4 oared gig profiled in WoodenBoat Magazine #139. He owns the 1937 Abeking & Rasmussen yawl, STORTEBEKER III, once the private yacht of Henry Rasmussen. He lives with his wife Amy and 2 children in Port Townsend, Washington.


The International Dragon was designed by Johan Anker in 1929. Over the past 81 years the class has enjoyed enormous success worldwide and has exhibited controlled growth in hopes of keeping the competition top notch while not excluding the older boats. In 2008 East Passage Boatwrights completed the restoration of D US2 SINGOALLA. Originally built in 1947, SINGOALLA received a full structural restoration using preventative measures to ensure that she will be on the water for another sixty years.

About the Author
Carter Richardson began his wooden boat career as a student in the International Yacht Restoration School’s two year Boatbuilding and Restoration program. In 2006, along with fellow IYRS graduates Seth Hagen and Nick Eide, Carter opened the doors of East Passage Boatwrights with the restoration of the International Dragon SINGOALLA. Past projects include the restoration of the 1952 Olympic gold medal winning 5.5 Metre COMPLEX II, the structural enhancement of the 54 foot Sparkman Stephens sloop SONNY, as well as the deck joinery for the 53 foot S&S yawl SKYLARK. Carter graduated from the United States Naval Academy in 1996 with a degree in General Engineering and served as a Surface Warfare Officer and Naval Dive Officer. He currently lives in Newport RI.
This paper is written to inspire and educate those interested in the finer skills and processes required to produce high quality castings. It is a how-to on casting from design to the finished hardware. It covers factors to consider in casting design, the types of casting processes, characteristics of the common alloys, fundamentals of patternmaking, a summary of operations on the foundry floor, and finishing the casting process through final machining and inspection.

About the Author
Pete Langley has been sailing and cruising since the age of 3. By age 20 he had almost 70,000 miles at sea, on many types of vessels, yachts, sailing, power and commercial fishing. He is a skilled sailor in any size vessel. The family currently owns the six meter INDIAN SCOUT US 66, the 5.5 meter COMPOSITION US 65 and a William Garden cutter PACIFIC TRADER built by Hope and Langley in 1976. Having this seafaring knowledge and a reason to put it to good use (a large family in the boating industry) he started Port Townsend Foundry in late 1980. Pete, over the years, has honed his skills learned from his time at sea and from the many mentors that inspired him to perfect the art of casting marine hardware and industrial and architectural products that have been supplied and that have sailed around the world.

ABOUT THE AUTHOR
Irving Sheldon is a native of South County, Rhode Island. He became enamored with anything to do with sailboats at an early age. He has owned five different boats for extended periods of time. A 1943 Yale graduate he served in the Pacific during WWII aboard the destroyer McGOWAN. He subsequently went into the non-ferrous metals industry, ending up operating a small manufacturing plant. Retiring in the early '80s he and his wife enjoyed cruising in a cat ketch, WINGS, designed by Halsey Herreshoff. Eventually he carried out a long time desire by building two small boats - a satisfying experience.

ABOUT THE AUTHOR
Earl Boebert is the Historian for the U.S. Vintage Model Yacht Group. He is a retired Senior Scientist from Sandia National Laboratories. His interest in YANKEE is the result of his writing a book on constructing a radio controlled sailing model of her, from a design described in a series of articles the Boston Evening Transcript ran in 1935, as part of the excitement attendant upon Lambert’s sailing for England.

SPECIAL PRESENTER – ROGER MARSHALL
Roger Marshall has raced at international levels, has done five Fastnet and 12 Bermuda races as well as most of the little ones in between. He has sailed in most of the world's oceans and has written 12 books about sailing and one on gardening. Marshall is a past president of Boating Writers International, judging chair for NMMA's innovation awards program at the IBEX show and the U.S. member of the jury for the Dame Awards at the METS show in Amsterdam.