

# K. AAGE NIELSEN 1904 - 1984

## AND THE S & S BOSTON OFFICE

It seems probable that few association members, other than those on the US East Coast, are aware of the importance of Aage Nielsen and his contribution to *Sparkman & Stephens* designs. I was so tempted by one of his designs, the 50 foot 1963 racing sloop *Solution* that in 1993 I nearly committed financial folly, before getting involved with a love affair with the S & S designed *Inverness*.

Nielsen was Danish, his family ran a sawmill and his early influence was that of the double ended local working craft. He drew his first set of lines at sixteen and in 1923 became a journeyman draughtsman for the Burmeister & Wain shipyard later joining Georg Berg who became his mentor. In 1924 aged only twenty, Nielsen sent his designs to *The Rudder*, *Yachting* and *Yachting Monthly*. The former magazine, the leading light in the US, published in February 1925 Nielsen's early design for a 35 foot racing sloop which they described as 'not an extreme craft in any way', an epithet which might aptly describe all of Nielsen's subsequent production. Around this time Nielsen took his future in his hands and wrote to the then pre-eminent doyen US yacht designer, John G. Alden, who, presumably on the basis of the design in *The Rudder*, offered him a job as a draughtsman. Like most great design offices Alden's was an incubator for young talent and Nielsen mixed with the likes of Fenwick Williams, Charles Swain, Carl Alberg and Murray Peterson, the noted designer of schooners who became a lifelong friend. But this was the time of the Great Depression and by 1931 Nielsen was looking to Europe looking for employment at Abeking and Rasmussen. However, things in Germany were just as bad so it seems Nielsen remained in Boston working with Petersen occasionally. Married to his wife Bodil he returned to Denmark in 1932 with plans either to return to Alden or to strike out on his own. That same year he wrote enquiring of a former colleague at Alden's about the firm of *Sparkman & Stephens*. Returning to the US in the autumn Nielsen collaborated with Murray Petersen in Marblehead and lived in his house.

Shortly after his return to the US Nielsen began working for S & S as a freelance. Notwithstanding the Depression this was a period of expansion for the Stephens brothers young firm ably abetted by the brokerage of Drake Sparkman. In October 1933 a rumour was received at the S & S second office in Rhode Island by Emmons Alexander that Alden was about to set up a New York office. Alexander engaged a broker with Boston connections called Richard Pratt and in January 1934 S & S opened their Boston office at 148 State Street. Alexander had known Nielsen when he too worked at Alden. A connection with S & S allowed not only for possible

design opportunities but for inspections and the opportunity to oversee construction while being close to his home at the Petersens. In 1933 Alexander had written to Olin Stephens saying "we could easily hire Nielsen (*sic*) ... a good man, to take the lines for you". A little later Alexander reporting to New York wrote "... he seems to have a great deal of work lined up for himself, and doesn't want to go down on an indefinite proposition unless he could get pretty good pay. In other words, he thought he should get \$50 a week. I told him that was impossible and that you wouldn't pay more than \$25."<sup>1</sup> Despite initial misgivings by June 1936, two years after opening the Boston office, Olin had hired Aage Nielsen. It was the start of a long friendship, and a rapport of mutual deep trust and admiration.

I have had the occasion to possess a set of plans for *Tomahawk*, one of the vessels Nielsen designed for S & S in Boston, as once again I was considering this boat in 1993 when she was in Mystic. They give a very profound insight into the way Nielsen thought. First and foremost he was concerned with structural integrity and strength and the quality of the materials going into a vessel. In this he shared characteristics with Rod and also Olin. As far as I am aware none of the vessels he designed has suffered a fatal mishap. The plans show this almost manic attention to detail and specification and are far more detailed than a normal set of design plans from S & S itself which left many decisions to a reputable builder himself. Nielsen's plans specify every scantling, every fastening, every material. They are beautifully executed and scripted meticulously and are almost works of art in their own right just as the plans of Frank Lloyd Wright, or other great architects, have been. Even when dealing later on with Walsted, the renowned, perfectionist Danish yacht builder he preferred, together with Luke's over all other yards, Nielsen would specify, write, specify and then travel to inspect at first hand. God forbid that something did not meet his approval or he would have the whole yacht disassembled.

Nielsen's twin specialities over the years were double-enders, that is to say yachts with a canoe stern, sometimes with an outboard rudder, and relatively shallow draft centre boarders. The former came from his intimate knowledge of traditional Danish working boat types in his youth and dare I say no one, except perhaps Fife himself, has bettered the art of the canoe stern. Centre boarders already had a well rooted tradition first in the East Coast workboats but between the wars Philip Rhodes had proved a master of this art and had created a number of unbeatable cruiser-racers in direct contrast to the development of his younger rival, Olin Stephens, through

*Dorado* and *Stormy Weather*. Nielsen however made the form something of his own trademark and indeed although *S & S* records show no documentation to this effect, it has oft been rumoured that when Carleton Mitchell commissioned what was then considered to be a very pint sized ocean racer with shoal draft from *S & S* to succeed his Rhodes designed, much larger, *Caribee*, Nielsen had at least a consultative role in the new boat, *Finisterre*. Certainly her general form was not dissimilar to Nielsen's own very successful designs, for by that time he had been an independent designer for a decade and in 1945 he had been the draughtsman designer of *Revenoc*, the archetypal keel-centreboard 45 foot racing yawl built by Nevins in 1946 and still active today in Florida named *Pilgrim* with a sister ship *White Mist* in Nova Scotia (see last year's yearbook).

Nielsen's employment at the Boston office lasted from June 1936 until December 1941 by which time war work had engulfed the attention of the design firm in New York. Twenty-three projects are listed in collaboration and of these the known named yachts are listed below in footnote two.<sup>2</sup>

Interestingly, after hanging out his shingle as an independent designer Nielsen continued to work with *S & S* but as an outside designer, a testament to the esteem in which he was held by Olin Stephens and this period resulted in some of his most important work between 1945 and around 1946. Three yachts are credited to Nielsen:

#539 *The Pilot Class* LOA 32' 11" Beam 9' 6" sloop built by a variety of builders.

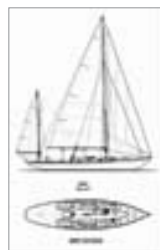
#577 *Comet* LOA 52' 10" Beam 12' 5" yawl - # *Revenoc* LOA 45'4" Beam 12' 1" yawl

*S & S* design number 539 is an archetypal *Sparkman & Stephens* branded design – yet from the pen of Aage Nielsen! Not only was it a best seller, but it paved the way for a whole generation of *S & S* designs, many the most successful racing craft of their era. It spawned a generation which, transmuted by fractional changes and advancements, progressed right up to the era of the split rudder and bustle and flattened underbody. Thus, it begat a line of yachts stretching, probably, from the early WWII years right up to the mid 1960s – a run of almost a quarter of a century. Its roots lay in the *Islander* design #164 and Aage Nielsen's *New Islander* #316. Hinckley and Knutson built the first stock *Pilot* class boats in 1938 but in 1940 the forward overhang was lengthened 21 inches, hence #316. LOA was 31' 3", LWL 23', Beam 8'5" and draft 4' 10". Fisher boat works also built a batch of 10 boats in Chicago in 1939-40. The forward waterlines were fractionally hollowed and her shape classic wineglass with the curve of the bilge starting well above the waterline in the best *S & S* tradition. The cockpit was fairly large as the boat would mainly be used for day sailing. There were a variety of layouts and the boat proved popular. Indeed one of the first boats, *Hoot Mon*, skippered by Ted Coggin won class 'C' of the Port Huron to Mackinac race. Incredibly this boat placed six hours before the next boat in class! Nielsen formed a rapport with Hinckley leading to his draughting further independent designs for them later on.

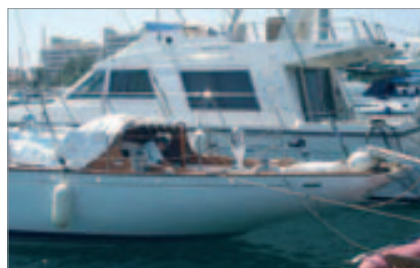
By 1945 *S & S* needed to update the *New Islander* and so came out with the first *Pilot* #539. The plans were drawn by Nielsen in the Boston office. Some seven or eight years ago at the Imperia classics I was chatting to Olin Stephens and I asked him how one of his



*Revenoc's Sistership White Mist*



*Comet*



Peter Woodd's breathtaking restoration of *Comet* in Cornwall, now racing in the Med. as *Cometa*, was featured in a previous yearbook. Thus, I shall briefly examine *Revenoc/White Mist* and the *Pilot*.

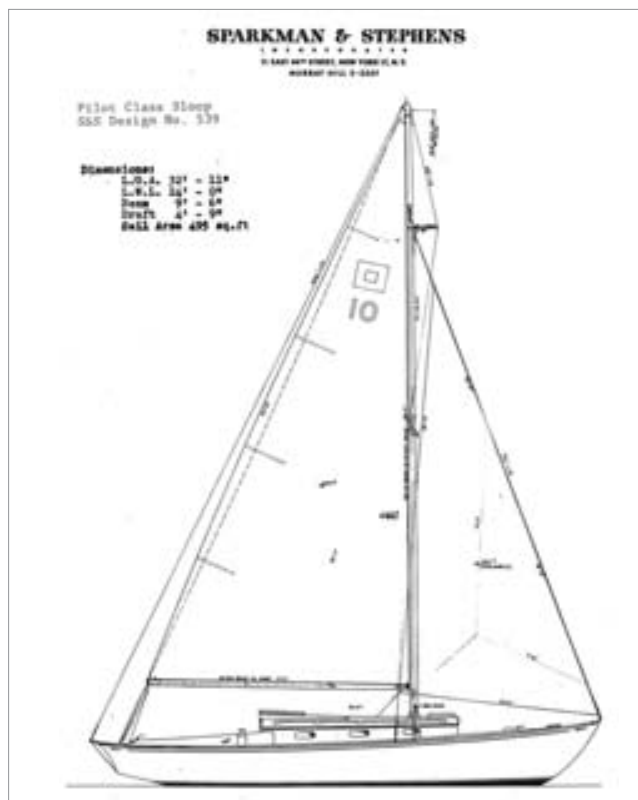
classic designs in the pre-computer age came to be born. Olin told me that having decided on the basic statistics the boat was to take he first addressed the mid-section as all else, including the prismatic

coefficient, would then follow. Thus he kept a personal touch on the first draft and then expected his office draughtsman to work up the hull while he would later approve the lines or comment for alterations. Olin then told me (and at that time I was totally unaware that Nielsen had drawn the *Pilot's* lines almost immediately after he became a freelancer once more)<sup>3</sup> that the progress of development of *S & S* craft had tended to be in 'families' of yacht one developing from another but closely related. He added that the most important of these had been the '*Pilot family*' whose basic shape had been emulated and tweaked by countless succeeding *S & S* designs from #539 to about #1750. I have no doubt that Olin must have approved the *Pilot's* mid-section but it is curious therefore to think what importance Aage Nielsen had on a generation of *S & S* designs. Indeed such was the esteem in which Olin held Aage that in 1999 when I once asked how it was that after *Dorada* he had never owned a cruiser-racer of his own he replied, "I never really had the time, yet had I had a yacht built for myself, I would have had her designed by Aage Nielsen". Pretty impressive praise as to the aesthetics, constructional detail and performance of another designer!<sup>4</sup>

The *Pilot* was intended as a family cruiser-racer for four with an enclosed head and a galley neatly disposed. Nielsen drew four alternative layouts. It was said at the time that name *pilot* was chosen for the class to lead the way into a revival of post-war yachting and indeed the class insignia was the code flag 'P' meaning 'I want a Pilot!' Much later the boat transmuted into the Hinckley *Pilot* design #1219 with the revisions carried out by *S & S*. These were beautiful boats which retained the basic mid-section and under body but which were extended by a couple of feet and lengthened on the waterline (see the article *Hit the Deck* about *Inward Bound* in last year's yearbook). Later still the boat was revised for fibreglass production at Hinckley's. Yet later still ten or twelve boats were built in the 1960s in Chile with shortened rig because of the strong winds and high seas prevalent there.

The yacht *Revenoc* is one of my all time favourites and not only have I looked her over closely but I have had the pleasure, one balmy long, northern July evening of 'racing' her sistership on the Bras d'Or lakes in Nova Scotia and can attest to the speed of this 1946 design as we were hard put to beat her in a similar sized 1963 design. Harvey Conover had three *S & S* boats called *Revenoc* (the reverse spelling of his name). The first was a NY32, the second was the boat drawn by Nielsen in 1946 and the third was a modernised update by *S & S* which was tragically lost with all hands of the Florida coast in the Gulfstream.

The second *Revenoc* was 45' 4" overall, LWL 32', Beam 12' 1", Draft board up 4' 9" with a substantial sail area of



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1014 sq.ft. and was built beautifully by Nevins. She was also one of the first boats under the CCA rule of this type to carry masthead rig. Conover had requested a shoal draft boat on account of wanting to sail the Bahamas where anything over five feet restricts access. The new boat was based on the waterline length of its NY32 predecessor but the new boat had more comfortable accommodations gaining 18 inches in her beam over the

**THE PILOT CLASS**

The PILOT Class Auxiliary has shown itself to be a rooey, comfortable small Auxiliary with an excellent turn of speed under sail.

A number of these boats were completed during the 1946 sailing season during which time they made an excellent record.

Cruising accommodations provide a four berth layout with elbow room and comfort throughout comparable to that generally found only in larger boats.

Cruising Club Rule Rating is approximately 23.7.

Plans provide for first class construction throughout based on the use of oak for keel, stem and framing. Planking may be Mahogany, either Mexican or Philippine, or Cedar. The spars are hollow Sitka Spruce. Standing rigging is 1x19, either improved plough steel or stainless.

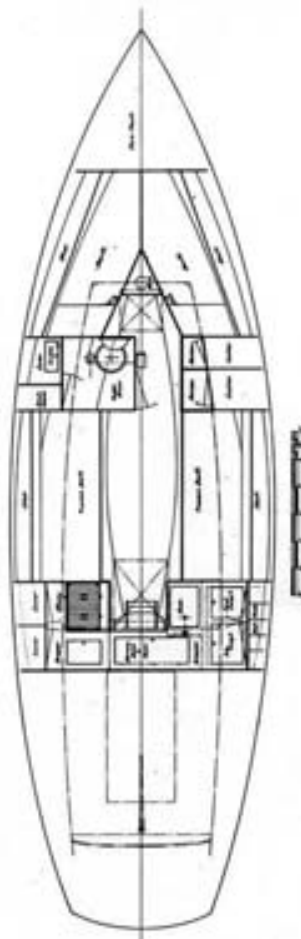
Ballast consists of approximately 4500 pounds of lead.

The engine indicated on the plans is a Gray "Sea Scout 4-91".

The rig is moderate in area and all inboard. A Genoa jib can be used and with the Genoa the boats seem surprisingly fast in light weather.

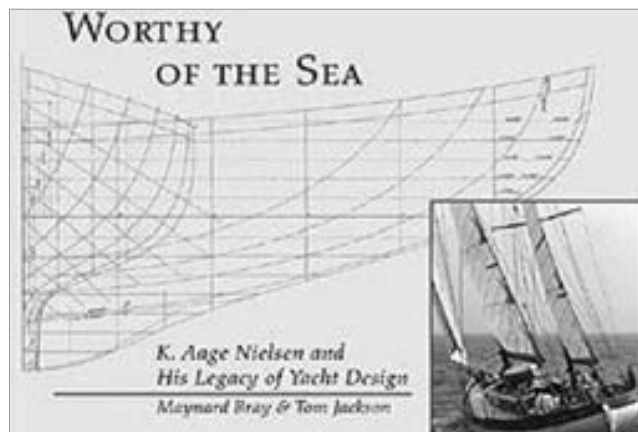
**Plans Available:**

- SAE #539-1 Lines
- 539-2 Construction Plan
- 539-3 Accommodation Plan
- 539-4 Offsets
- 539-5 Sail Plan
- 539-6 Main Mast
- 539-7 Main Boom
- 539-8 Mast Head Details
- 539-9 Details of Vee Strut
- 539-10 Spreader & Fittings
- 539-11 Mast Tangs
- 539-12 Jib Stay Tang
- 539-13 Spinnaker Pole Specifications



older keel boat. This allowed for a full width galley instead of the rather pinched affair forward on the NY32 and her saloon had space for comfortable and commodious pilot berths. Forward there was a decent sized toilet compartment always to port on Nielsen boats with cupboards opposite and a decent sized owners stateroom forward. In no way was the accommodation squeezed. The boat proved so fast, as I can attest, that all subsequent Niensens used her performance as a parameter. Although Philip Rhodes had designed several successful shoal draft centre-boarders from the 1930s on which had been true race winners, Nielsen's development of the pre-war *Solution*<sup>5</sup> with her rather slab sided high topsides and shortish overhangs developed into the second *Revenoc* with her relatively flattish sheer

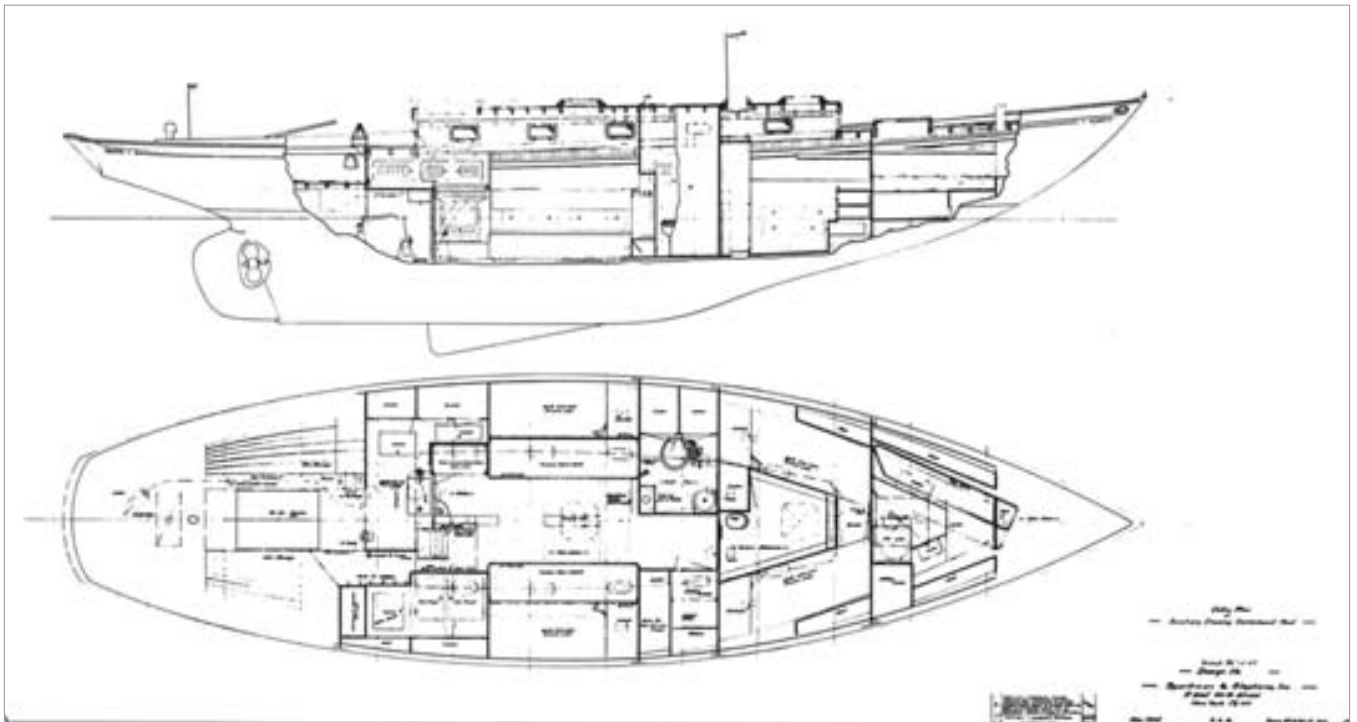
and long drawn out ends. Indeed the pointy aggressive bow with the spoon drawn out naturally to a point without any snubbing became a trademark of Nielsen boats, quite different to *S & S*, and this can be seen in scaled back form in the *Brazil/Macinnack* class 40 footers as well. *Revenoc* served as a touchstone for all future Nielsen k/cb designs. Conover was commodore of the CCA and this may well have had some effect as to why the k/cb type became so popular, a popularity enhanced by the later success of *Finisterre* under the rule. On the basis of his success with this design Nielsen in 1947 drew the lines of *Stormy Petrel*, flush decked and 51' 1" and in 1951 the even larger *Temptation* k/cb a 56 footer followed by a host of smaller vessels and then his sublime *Tiogas* and their near sister ship the k/cb second



*Solution*, also a 50 footer built in 1963, and to my eye one of the most beautiful of all creations. For those of you who are interested and who enjoy the harmony of perfect sets of naval architectural lines and the body and accommodation plans, and who in consequence are owners of Olin Stephen's book *Lines*, I can only warmly recommend you to acquire and read an account of Aage Nielsen's career, full of anecdotes and lavishly illustrated with drawings. *Worthy of the Sea*<sup>6</sup> is an excellent book and far more than a fireside read. One can do no more than quote from Olin's own introduction to this book:

*"As I think of Aage, the one word that describes him completely is integrity. He knew what he was doing and he took no shortcuts. His drawings, complete and attractive, his care to skip nothing proper to the boat's purpose, his full acceptance of the need to use an able builder and then to follow through at the builder's yard and see the new boat to full completion, the spirit behind all this activity, can all be characterised by the single word 'integrity'. That was Aage Nielsen."*

PATRICK MATTHIENEN



*Revenoc*

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