Atalanta Restoration Plan

***Atalanta* at Oriental Bay ca. 1920**

Prepared by Gavin Pascoe

with Peter King and Meric Davies

May 2014

This document should be read in conjunction with Bruce Askew's survey report and drawings.

Contents

Introduction

There are many variables involved with *Atalanta*'s restoration. Some are apparent; others will become so as the restoration progresses. It is fortunate that there is no interior cabinetry to interfere with inspection. As is near as possible, she is a "what you see is what you get" prospect.

From her arrival to Wellington in 1894 until leaving in the 1970s, *Atalanta* was a competitive racing yacht, and perhaps the most consistently successful in the history of racing in Wellington. All through her racing career, *Atalanta* was nigh-on unbeatable in light winds. She continued racing successfully in Dunedin through the 1980s.

The desired end result for Atalanta

A yacht which is safe for harbour and some coastal sailing;

The experience of sailing her should reflect as closely as possible what she was like to sail when she was first built.

Ownership and status

Atalanta is owned by the Wellington Classic Yacht Trust, which received her as a donation from Julian Matson in August 2013.

Atalanta (white hull) leading Rona (foreground) and the fleet in light conditions. ca 1900

1 History

History of Atalanta

Owners

Wellington Classic Yacht Trust (Wellington, 2013-); Julian Matson (Marlborough and Port Chalmers, ca. 1980-2013); Bob Harris (Wellington, 1974-ca. 1980): Pat Millar (Wellington, 1962 - 1974); Jack Cox (Wellington, 19??-1962); Hugh Askew (Wellington, ca. 1945-1951); Cliff Cunningham (Wellington, ca1937-1944); M. Y. Lamb (Wellington, 1936-??); Basil Tonks and McCrory (Wellington, ??-1931-1936); Fred Hendry (Wellington, ??-1928-??); Hill Brothers (Wellington, 1921-1926-??); Hill and Walker/Adams (Wellington, 1920-??); Aslin and Beaumont (Wellington, 19??-1915-1920); W. Hales (Wellington, 1902-1909-??); Otto Schwartz (Wellington, 1897-1902); Winstanley (Wellington, 1895-1897); Canning & Smith (Napier, 1894-1895).

Charles Jr. and Walter Bailey, designers and builders

Mr. C. Bailey, Junr.

Charles Jr. and Walter were sons of Charles Bailey, a boatbuilder who migrated to Auckland in 1870 from England. The brothers bought their father out and took over his yard when he retired from boatbuilding late 1893 to run Gleeson's Hotel. *Atalanta* was one of the first vessels to leave the yard under the brothers' partnership. This might account for their father's prominence at her launching ceremony in May 1894 - he may have had a hand in her design.

The brothers remained in partnership for only five years. They apparently had quite different personalities. Charles Jr. remained at the yard, Walter leaving to create the Bailey and Lowe partnership, now best known for their motor launches and small racing dinghies. Lowe had been a long-term employee of the Baileys. Charles continued to build fast racers and cruisers, with particular success with his raters of the late 1890s/early 1900s. His first yacht was the *Rogue* (1892), and kept working up to his death 27 August 1952.

Atalanta's Chronology

1894: Built by Charles Jr. and Walter Bailey (possibly to a design by Charles Bailey Sr.) for J. H. Smith and J. Canning of Napier. Launched 08 May 1894.

1895: Sailed from Napier to Wellington to compete the Inter-provincial regatta. Arrived Wellington 16 January 1895. Won the regatta but was disqualified

1898: Won the Inter-provincial regatta a second time

1914: Suffered collision with Wellington Harbour Board pilot boat.

1927: Inboard auxiliary installed.

1937: Converted to keel yacht with bermudan rig. Interior stripped out, new cabin built, stem and transom modified.

1945: Keel deepened, mast lengthened

1947: Won the Mills challenge trophy by winning the RPNYC division one championship three years running. This challenge had been set fifty years prior.

1950-1970: Consistently winning club pennants under ownership of Cliff Cunningham then Pat Millar.

ca. 1980: Taken to Port Chalmers

ca. 2001: Put into stoage

Wellington Classic Yacht Trust, restorer

The Wellington Classic Yacht Trust was conceived in response to the plight of *Lizzie*, which had been declared salvage by the Auckland Regional Council in 2010. *Lizzie* was too important a vessel to allow to be destroyed, so the Trust was set up to rescue her, and boats similarly at risk where possible.

The Trust became an NZ registered charity in August 2013.

Since 2010 the activities of the Trust have expanded to:

Research and publish on the history of the sport and pastime of yachting in the region; the clubs, the boats, the builders, and the people who sailed them.

Collections appraisal for other maritime heritage institutions.

Facilitating collections access projects between heritage institutions.

Creating an online database of vessels.

Collecting, collating, and describing images from both private and public collections, and making them freely accessible via the internet.

Providing advice on the care, preservation and use of wooden vessels to cultural institutions and private owners.

Collecting artefacts of good provenance which fall outside the scope or interest of existing Heritage institutions.

Supplying and swapping information with family and club historians.

In partnership with the Royal Port Nicholson Yacht Club, created a sailing series for classic yachts.

Representing our city and its heritage by visiting other centres and participating in different events.

Sourcing small boats for Onslow College as tools for teaching students water safety skills.

In partnership with the Wellington Ocean Sports Centre, creating a course in traditional skills

All of these activities and services are provided free.

2 Description

Atalanta was built as a gaff-rigged cutter, with external lead ballast and centreboard. She was launched on 08 May 1894 in Auckland.

Modifications
Aside from engine installations from the 1920s onwards, Atalanta remained unmodified until:

1937

- Deadwood added with fixed external lead ballast.
- Converted to Bermudan rig.
- Counter shortened
- Fiddle bow removed, line of stem extended
- Interior cabinetry removed
- Cabin and cockpit rebuilt

1945

- New, longer mast installed
- More deadwood added, deepening ballast

Subsequent modifications did not interfere significantly with the original structure of the vessel

Atalanta as she is now

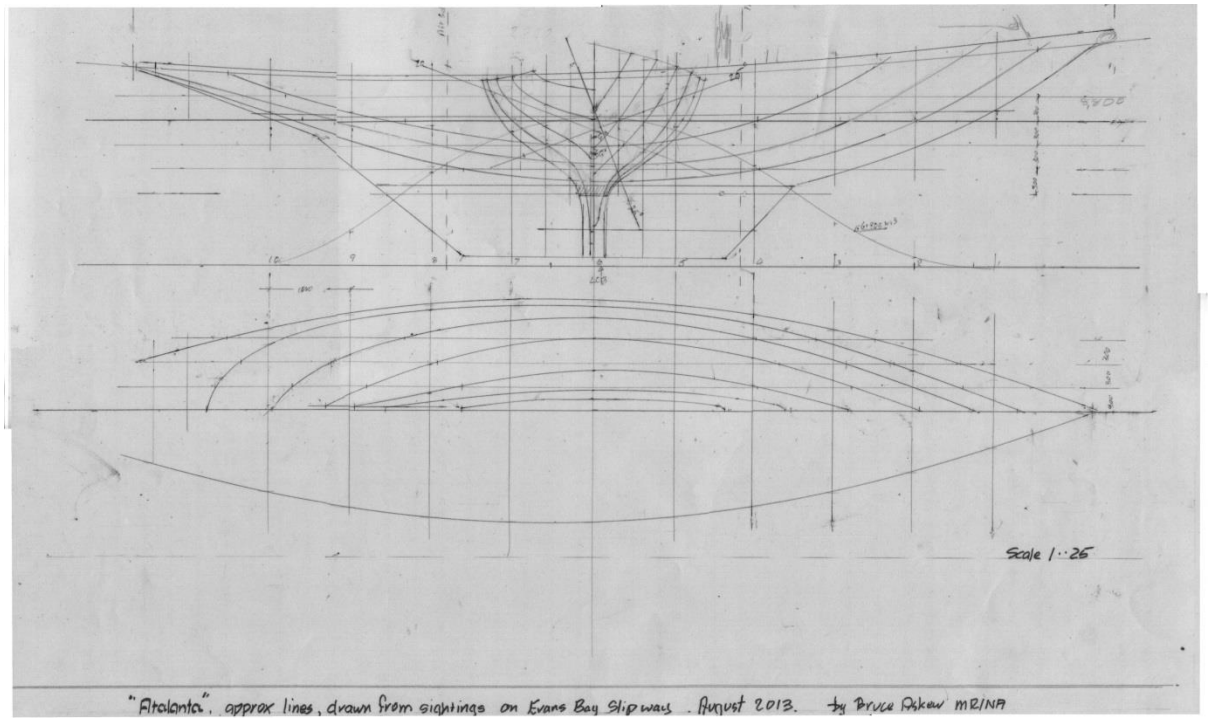
Part	Original fabric	Surviving	Notes
Deadwood, stem, keelson, keel	New Zealand kauri	yes	
Deadwood (keel) Installed 1937 and 1945	Douglas fir	yes	
External ballast	Lead	See note	Lead (probably the original, recast) is attached to the keel. It will require reshaping
Centrecase and plate	unknown	no	
Floors	New Zealand Kauri	partial	
Planking	New Zealand Kauri	yes	
Beam shelf and stringers	New Zealand Kauri	yes	
Deck beams	New Zealand Kauri	partial	
Hanging knees, lodging knees	New Zealand Kauri	partial	
Transom block	New Zealand Kauri	no	
Breasthook	New Zealand Kauri	yes	
Deck	New Zealand Kauri	yes	
Cabin and cockpit coamings	Teak	no	

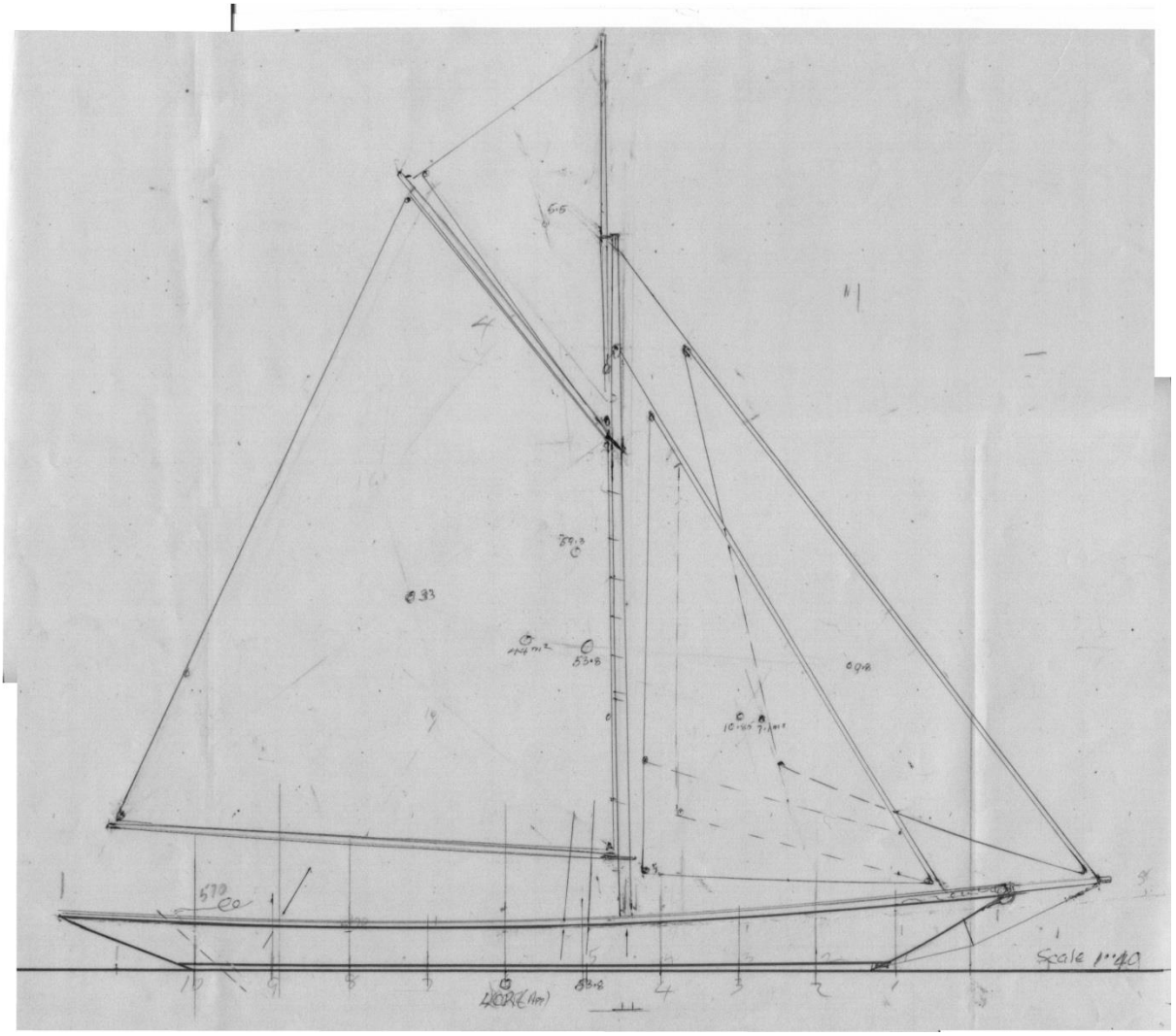
Mast	Unknown	no	
Spars	Unknown	no	
Standing rigging	Unknown	No – see note	Original probably plough wire
Running rigging	Hemp or manilla	no	
Deck and spar hardware	Bronze and hardwood	no	

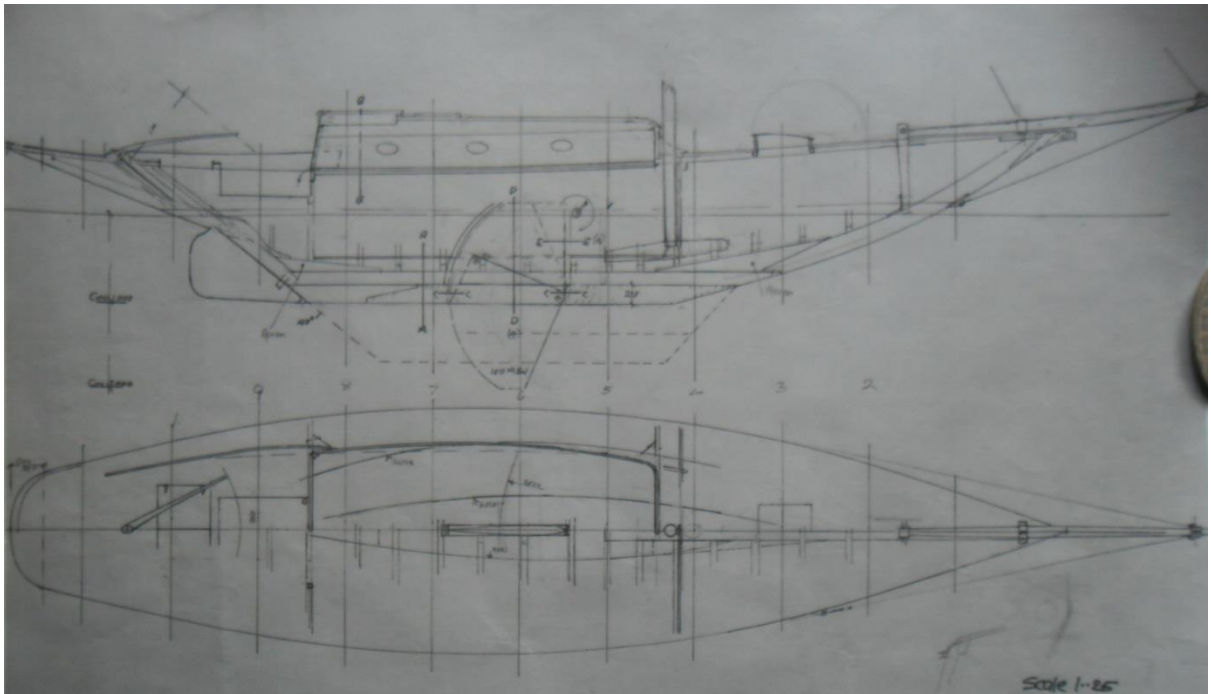
3 Information

Drawings

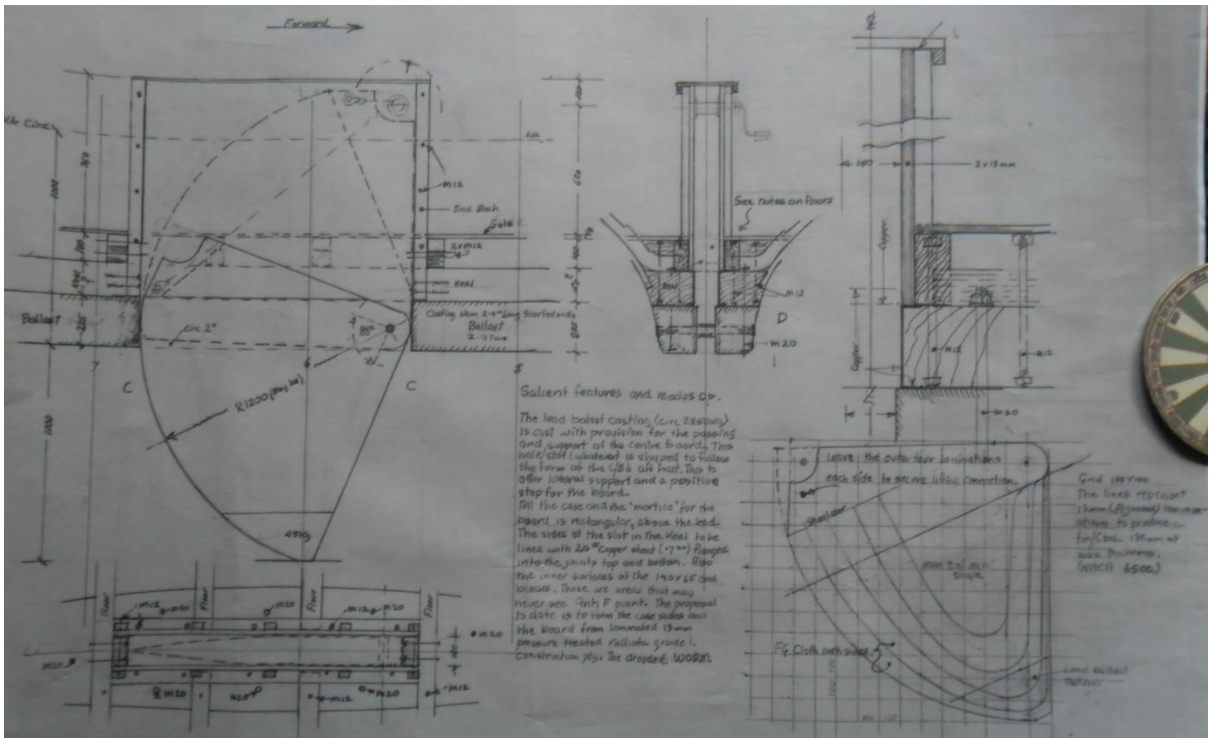
Any original design drawings of *Atalanta* are likely to have been lost in a fire at the Bailey offices. Below are approximate lines taken off by Bruce Askew when she was on the hard at Evans Bay in 2013, a suggested centreboard configuration, and a proposed sail plan.



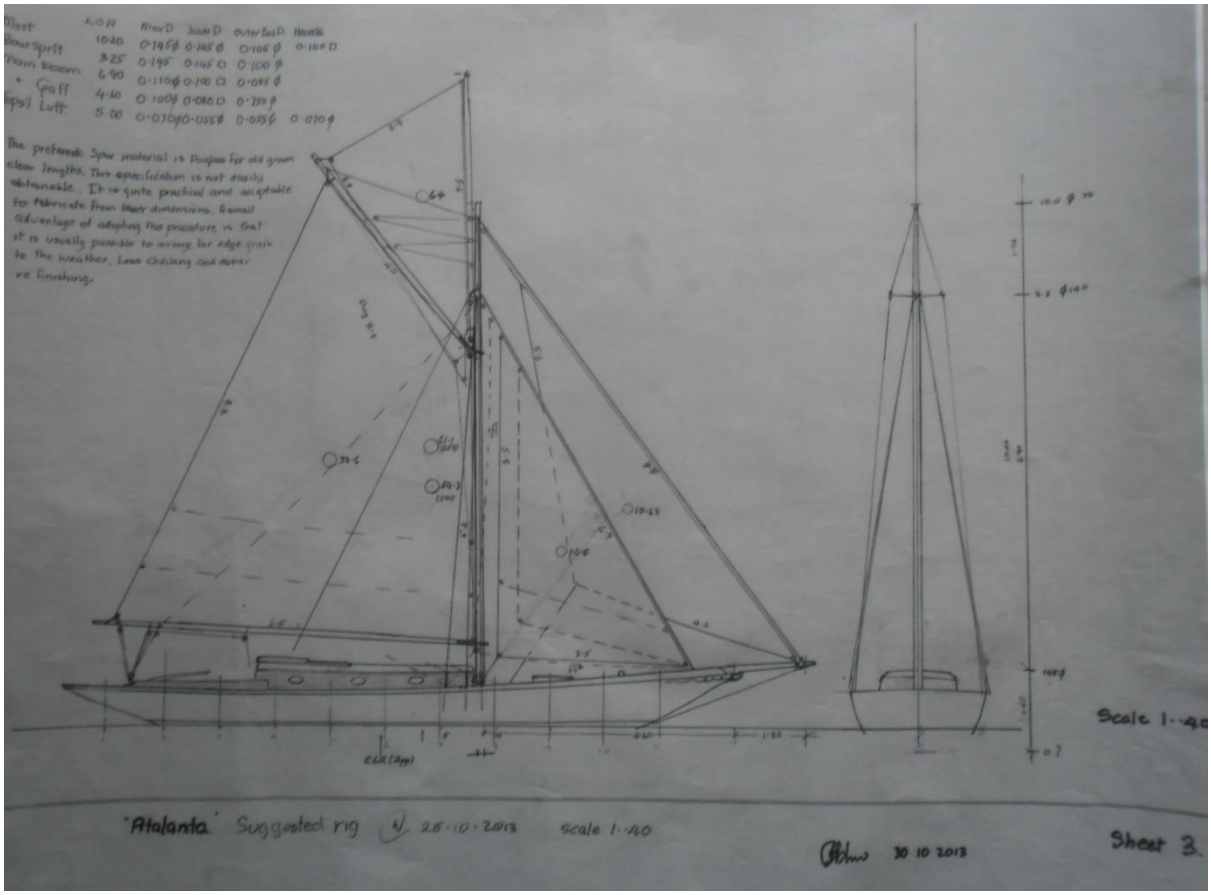

Scale 1"=40'



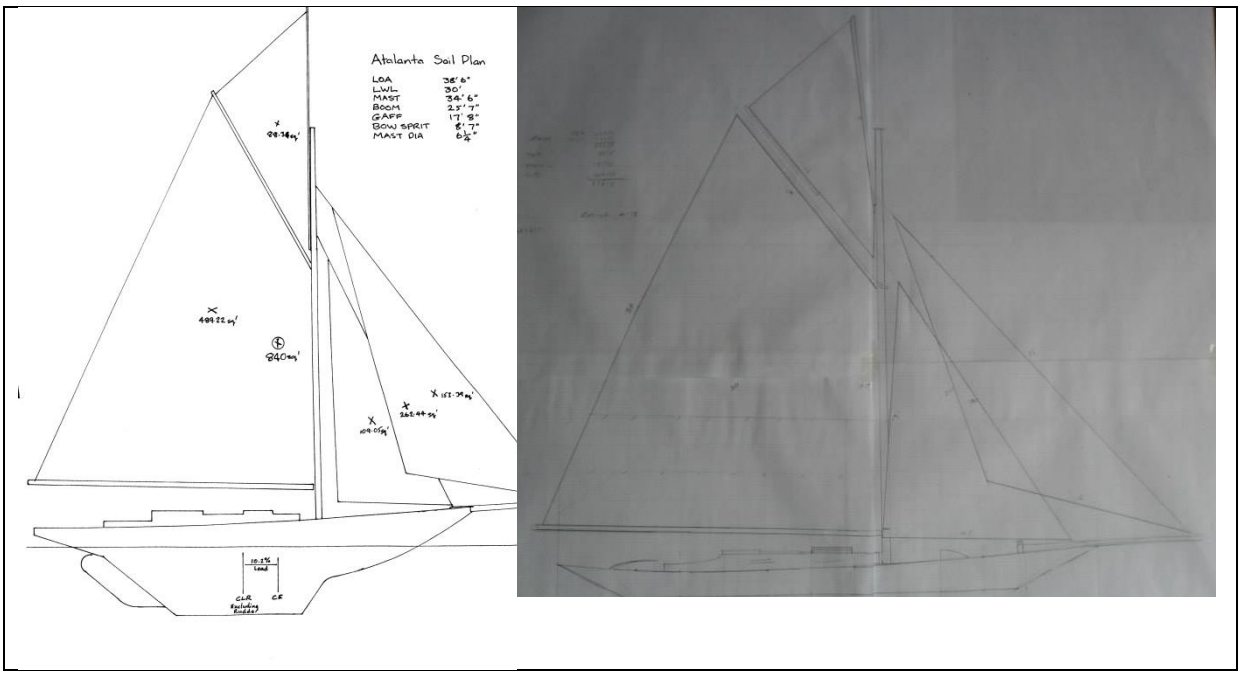
Atalanta General construction arrangement showing possible Centre Board position and rudder adjustment. 30.10.13 Sheet 2.



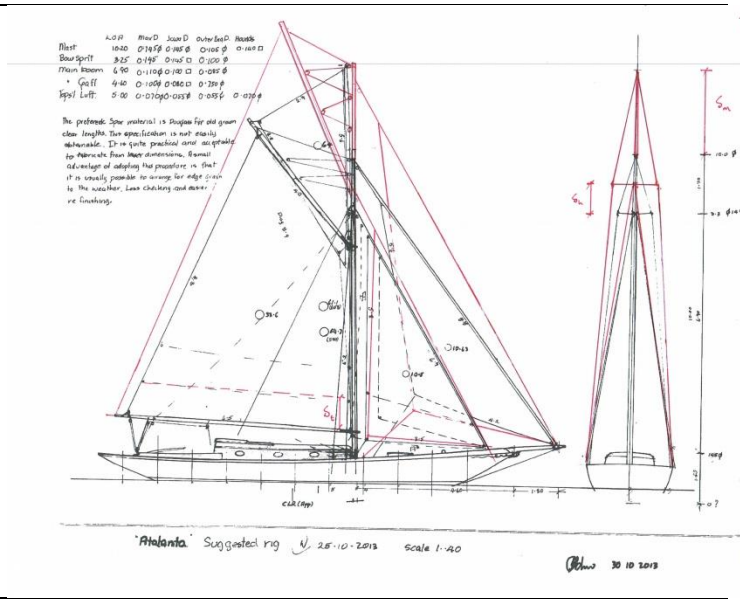
Atalanta Centre Board and case arrangement Scales 1-10 - 1-5 05.11.2013. Sheet 4.



During the 1890s, *Atalanta* rated between 4.2 and 4.6, depending on the sails she carried for any given race. Below are two a draft sail plans based on this knowledge the first by Peter King the second by Gavin Pascoe.



The image right is drawn by Sandy Munro. The larger sail area is designed to suit her current keel and ballast arrangement. It can be reduced to the smaller area once *Atalanta* is reverted to her original ballast and centreboard configuration.



Historic photographs

Below is a selection of photographs which illustrate the various mutations *Atalanta* has gone through during her lifetime.

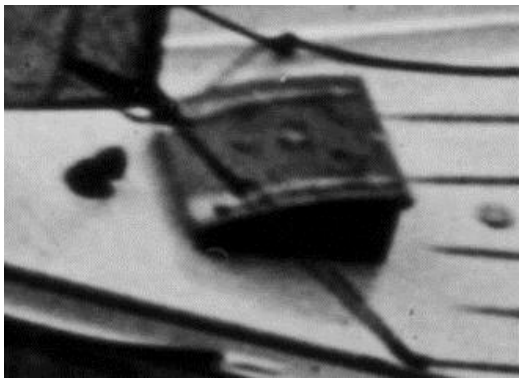
<u>Alexander Turnbull Library</u>

The image below is taken in Wellington. It is dated ca. 1895 by the Alexander Turnbull Library. In 2011 she was identified as *Atalanta* by Harold Kidd. If the dating is accurate (and there is no reason to think it isn't), this is how she appeared upon her first arrival to Wellington. Evident are the low cabin, trailboards and carved fiddle bow

Museum of Wellington City and Sea

These two images are part of a set of lantern slides. They are undated, and the provenance unknown. Taking into consideration the subjects of the other slides in the collection, they are most likely to date to between 1909-1914.

Apparent in these photographs are the battens on the foredeck to aid crewmen's balance; internal chainplates, club-footed topsail, iron tiller, chain pipe and scoop forehatch. The coamings have been painted white in the second image.

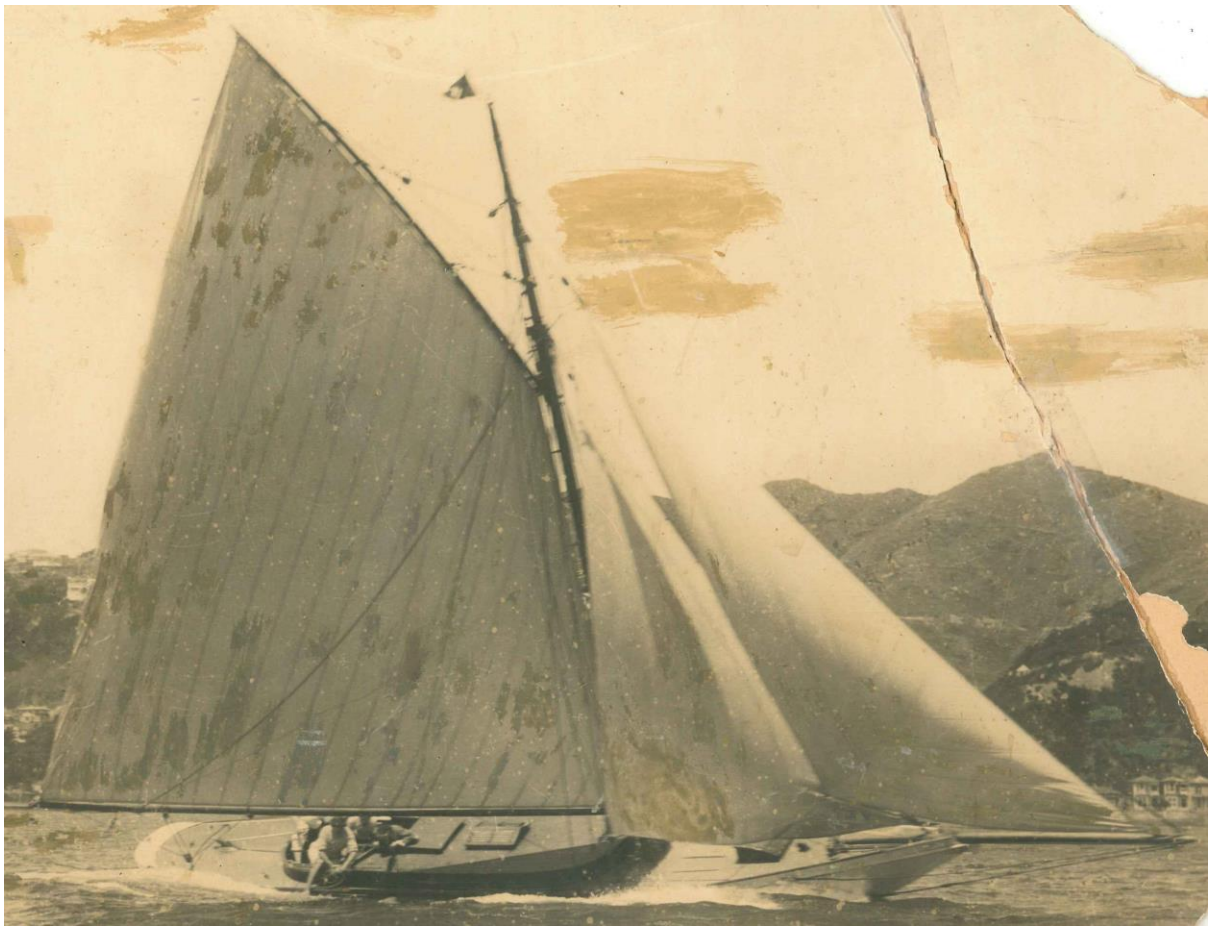


Hatch, battens, and bowsprit shroud detail

Chainplate detail

Royal Port Nicholson Yacht Club

This photograph was taken during the 1920s. She appears little changed from the images in the Museum of Wellington City and Sea collection. The trailboards are removed, and a floral design painted on the toerail.



W. M. Moffat

This photo was taken during the 1920s. The deck is canvassed (as it likely was originally), the sheeting arrangements of the mainsheet and running backstays is also readily discerned. The cockpit is very open with a large grating. Some design elements of the butterfly hatch are evident.

Comparing this image with the second of WMCS, the joinery of the toerail and blocking on the transom may be deduced.

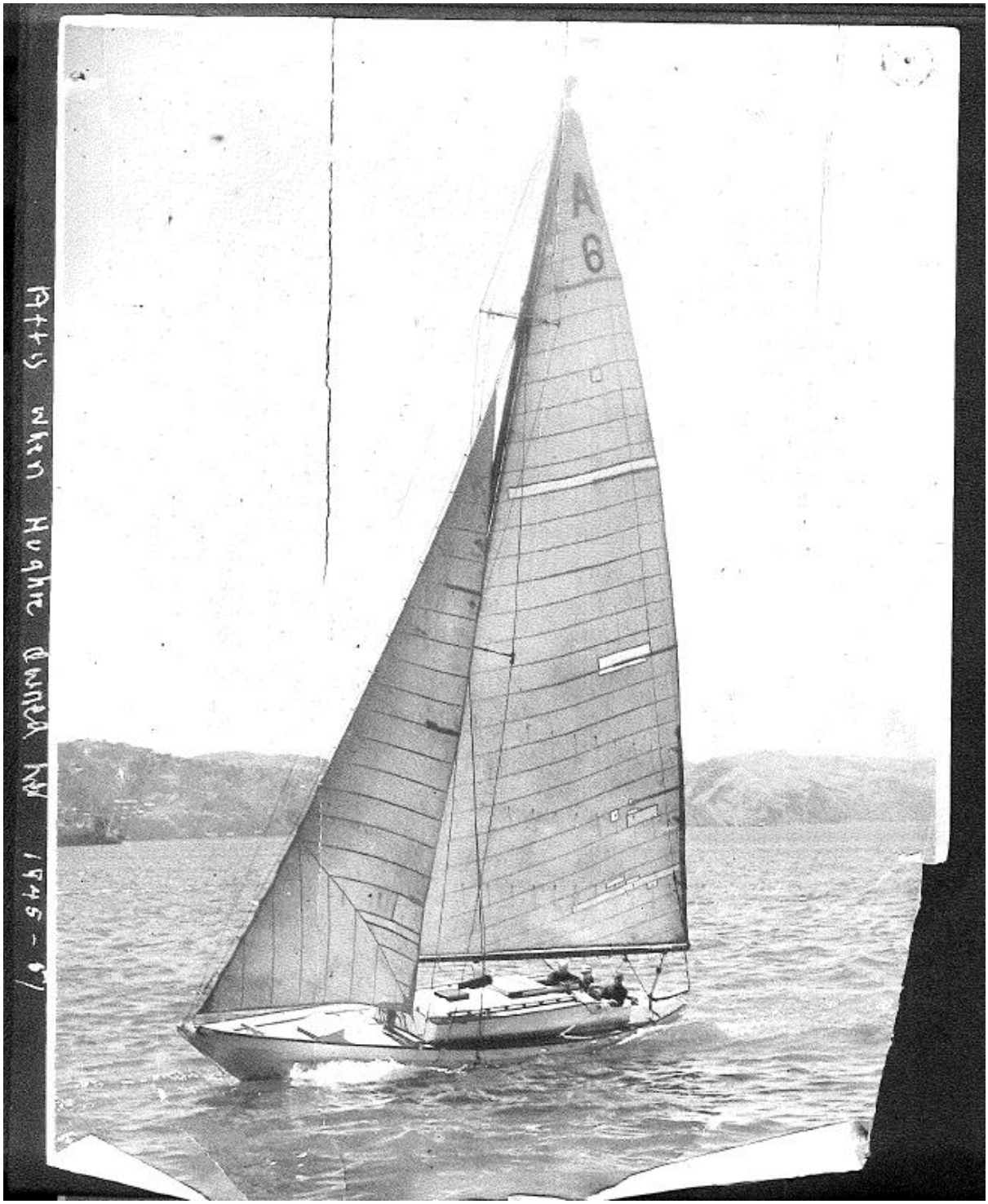
Harold Kidd

Harold Kidd identifies this vessel as *Atalanta* sailing during the 1930s. She has undergone some significant changes. Her cabin and cockpit have been rebuilt; the cabin is shorter, and has squarer ends forward. The cockpit is longer. The transom block has also changed shape, with the rails running full around the counter. The tiller is now timber, and extends below the mainsheet horse, which has been moved forward. She also appears to have either a dolphin striker or spreaders on the bowsprit shrouds.

Bruce Askew

The first image below shows *Atalanta* in her most dramatic change – converted to a Bermudan sloop under Cliff Cunningham's ownership. Her cockpit and cabin top have been rebuilt with square ends and no ports. Her counter is shortened and fiddle bow removed, changing the profile of the stem. Her sheerline has been changed forward, accented by a new toerail: flared and very full at the bow, with a pronounced taper running aft. It is likely this is when *Atalanta* was converted from a centreboarder to a keeler. She had definitely been converted by the time Hugh Askew purchased her. The second image was taken during Hugh Askew's ownership. She has a new taller mast, and her keel has been deepened.

Atalanta Club Cygnet Cunningham 1938 18 feet



David Fisher

This image taken during the late 1930s when in Cunningham's ownership shows the twist in *Atalanta*'s transom. It has not worsened in the intervening time.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Pat Millar

This image taken during the 1960s or early 1970s shows *Atalanta* in the configuration she had when she came to the Wellington Classic Yacht Trust. Her cabin has been altered, with a raised area to the house, and ports added. Her mast and spars are now aluminium. Since this photo was taken, a ply laminate has been laid over the deck, and the forward hatch rebuilt to a flat profile.

Written archives

Atalanta has been written about at length in the press, particularly that Auckland and Wellington, and the magazines The New Zealand Yachstman, Seaspray, Boating New Zealand. The image below is from the Auckland Star, 08 May 1894, and records some of the detail of her construction and fit out:

THIS morning the ceremony of launching the new yacht which has just been completed by Mr C. Bailey, for Messrs J. H. Smith and C. Canning, of Napier, was performed. The boat was sent off the slip at high tide, about 9 o'clock, being christened by Mrs T. J. Brassey for the popular owners. The name chosen for the yacht was Atalanta, under which name some eminently lucky boats have sailed, and it is not likely that the luck of the name will be belied by the new craft. Mrs Brassey was afterwards presented by Messrs Smith and Canning with a gold brooch, on which is engraved the picture of the Atalanta. Both Mr C. Bailey and Mr C. Bailey, junr., were the recipients of handsome presents from the owners, the former receiving a handsome cigar case and the latter a silver lever watch. On each of these presents are engraved the names of the donors and the date of presentation. The following are a few particulars of the yacht, which is one of the handsomest boats yet turned out by our local builders, and will no doubt not only be one of the finest of the Napier fleet, but also a credit to Auckland. She is diagonally built in three skins and is ballasted with two tons of lead on her keel and is also fitted with a centreboard. The timber used throughout the construction is kauri of the finest quality, with the exception of a teak cabin covering and deck fittings of the same wood. Her dimensions are: Length (l.w.l.), 27ft; length overall, 40ft; beam, 9ft; draft, 3ft. The yacht is fitted with a pole mast and carries a jack-yard topsail. The fittings throughout are of brass, patent brass screws being used in place of rope lanyards for her stays. The cabin is tastefully upholstered in red plush, the panelling being of mottled kauri, while the forecastle is divided off from the cabin proper by a curtain matching the upholstering. The yacht is fitted with all the most modern conveniences for cruising, such as a pantry, kerosene cooking stove, etc., and the centreboard — usually such an unsightly object — is hidden from view by a table of polished cedar fitted on to it, the working being all out of sight. This afternoon the yacht was taken for a spin round the harbour, and we must say that not only have the owners secured a very comfortable boat for cruising, but also a very fast sailer. Messrs Canning and Smith intend cruising round the harbour for a week or so, after which it is probable they will sail the boat down to Napier.

Oral history

The Trust is in communication with previous owners and the descendants of same.

4 Treatment

Situation

Atalanta had been stored for about 12 years prior to the Trust's ownership, and was very dry.

She has a slight twist in the aft section of her hull, which according to photographic evidence has been there at least from the late 1930s. This is common to boats of this age and construction, and does not impact upon the safety of the boat. The twist appears to be confined to the section of the hull aft of the companionway and is only really apparent at the transom.

The original deck is present, overlaid with plywood.

Preservation vs. conservation vs. restoration vs. reinstatement

Preservation: Keep everything as is. (i.e.: a snapshot)

Conservation: Keep everything as is, and store in atmosphere-controlled space. Minimise direct handling or contamination of any kind.

Reinstatement: Repair what is there, or remove what is not functional and replace like for like.

Restoration: Take a snapshot in time, and recreate it.

Preservation of this vessel in the museum sense is impossible – it would not be seaworthy, so useless for our Trust; and there is no museum in the country which would agree to take in *Atalanta* as she is. The work proposed here factors in most of the concepts above.

From the Trust's perspective there is no question of preserving *Atalanta* in her current sailing configuration as a bermudan sloop, but the preservation and conservation of the original Bailey work remaining in her hull and deck is central to the Trust's mission. The Wellington Classic Yacht Trust's mission is to rescue, restore and *sail* our boats; not to preserve them in the museum sense.

Our intention is to restore *Atalanta* to a gaff cutter sailing configuration as close as possible to the way she was from the time she was built, and to restore or reinstate her original centreboard hull configuration. To retain her current deep ballast keel alongside a reinstated low aspect gaff cutter sail rig would be undesirable in terms of sailing performance and the integrity of her restoration.

The work we propose combines, therefore, elements of preservation, conservation, restoration and reinstatement. We will preserve and conserve original extant elements, and restore and reinstate non-extant elements by recreating them.

The Trust will endeavour to preserve and conserve the original Bailey work wherever it is safe (for harbour sailing up to 25 knots) to do so, and to interfere as little as possible with it. For example endeavouring to not use penetrating, hard curing resins to bond to original fabric, as future removal work will destroy original fabric. Mechanical fastenings may be used in conjunction with traditional soft bedding compounds like lead, linseed putty and creosote blends. Modern soft-curing

compounds are acceptable. Mechanical fastenings do of course create holes, etc, but they don't completely destroy a plank or beam when removed for repair or replacement. Modern resins may be used to bond non-original materials if desired or required, though are not to alter the look and feel of an antique vessel.

It is WCYT policy that wherever it is not possible to retain original fabric in in its functional state, then it should be removed, and samples retained. Where possible, samples to be left in-situ to act as record. This does not appear to apply in *Atalanta*'s case

In areas which might be considered marginal, reinforcing repairs may be used in lieu of replacement.

Water or corrosion staining, dents, chips, etc, may be left – *Atalanta* is an old boat and should look it.

There will be areas where compliance with the above will not be possible. For example, when seams between planks have opened up too much to be caulked, and the planks thereby become too narrow, the gap can be eliminated by gluing a narrow strip of timber along the edge of one plank to increase its width. This is known as splining. This is a pragmatic approach, the alternative to which would be to completely replace the plank(s) concerned with ones wide enough to eliminate the gap(s). The splining process allows the boats to be caulked in the way they were originally, and for the planking to "take up" and "work" as originally intended. It is also the least-invasive repair for leaking hulls, and until now, the most proven method of managing water ingress and deterioration long-term, without re-planking.

Additions which are adjacent or attached to original material should not be irreversible. That is, their future removal should damage original material as little as possible.

In all of the work we do, there will have to be an element of pragmatism.

Materials

Traditional NZ boatbuilding timbers:

Access to boatbuilding quality New Zealand kauri is non-existent, unless taken from other boats (recycled construction kauri such as we use now would have been summarily rejected by high-end builders like the Baileys). Pohutukawa and rata are difficult to obtain in large quantities. Other timbers such as Southland Birch, Kaikawaka, Kowhai and Kahikitea are nigh-on impossible to get. You may see these timbers advertised by dealers, but when you call, there's never any there. It is very expensive when it is available.

Alternatives

In light of the above, restoration will rely on primarily recycled construction NZ kauri, and timbers suitable for boatbuilding, including hardwoods mahogany (in its various guises), teak, American white oak, Australian jarrah and spotted gum, African hardwoods like iroko and purple heart; and softwoods like US or Canadian forest grown douglas fir or spruce, Huon Pine, Northern European pines, Pacific kauri, and cedar (Alaskan yellow, American white, or red). Cedar was a timber the

Bailey family favoured due to its lightness and dimensional stability (only red cedar is readily available, and somewhat inferior to yellow and white cedar, both tightly regulated).

Due consideration should be given to the properties of timbers used for any application.

Fastenings:
Wherever possible, these should be copper or bronze, but stainless steel or hot dipped galvanised iron or steel may be used.

Steel or iron should only be used above the waterline and in well- ventilated and accessible areas. They should be avoided wherever possible where they are load-bearing in areas prone to movement brought about by large fluctuations in humidity or stress. Also avoid use below the waterline (keel bolts, centrecase through bolts), and areas prone to shock loads where they cannot be easily replaced (Carlin tie rods). They must not be exposed to electric current, particularly where yellow metals are also present.

Copper and silicon bronze are the preferred metals throughout, but particularly below the waterline. They should be the only metals used below the waterline, and as many other applications as affordable and practical.

The predominant hull fastenings used in pre WWI boatbuilding (excluding copper rivets) were brass screws and iron nails. Neither of these is satisfactory.

Auxilliary power
Boat handling skills are not as sharp as they were, in an era of professional crews made up of experienced career seamen and pilots.

Most marinas require vessels carry auxiliary engines.

The installation of an engine will increase the level of safety for both the vessel and the people on board her, and comply with marina rules and maritime regulations.

5 Process of the Restoration

After some months of thoughtful consultation and debate, it is generally agreed in the given circumstances that the restoration project prudently go forward, allowing for changes in circumstance, income or acquisition of building material. We are to maintain flexibility in our work, depending on changing circumstance, or the lack thereof.

The restoration will be split into several distinct sections, the focus of the work, and progress of each section will be influenced by circumstance:

Above the waterline

Below the waterline

Interior fit out

Engine installation

Mast and spars.

Some elements of these may be done concurrently.

Work done so far

At the time *Atalanta* came into possession of the WCYT in 2013, she had been in in covered storage for about 12 years. It was imperative that she be put back into the water as soon as possible.

Over a period of about six weeks, the following work was completed:

Engine removed and discarded

Garboard and first two planks top-edge splined

Void in rudder for a propeller filled and faired

Plank repaired on starboard topside midsection

Cracks in the hood ends repaired

Propeller shaft hole in deadwood filled

Areas of the hull refastened with copper rivets

Caulking below the waterline removed and recaulked with cotton and oakum, puttied, and faired

Hull sanded primed and painted above and below the waterline

Atalanta is now moored at berth number one, Clyde Quay.

Above the waterline

Work above the waterline includes cabin, cockpit, hatches, deck, fittings, toerails, hull twist, stemhead and transom block.

Below the waterline

Work on the hull is mostly complete, though more refastening will need to be done at some stage. Putting pressure on the hull while under sail will define this work.

Reverting to centreboard configuration will be the major piece of work. This requires the Douglas fir deadwood be removed, and the keelson, etc be rebolted. The external lead ballast will have to be removed, recast, and refitted. Some floors will have to be removed and/or remodelled during this process.

Centre case recommended to be built as per Bruce Askew's suggestions.

Interior fit out

This is cosmetic, and not necessary for the function of the boat as a sailing yacht. It will be left until last, or at least until after the engine and the centrecase are installed. It will be simple, and reflect the description in the newspaper article reproduced in section 4 of this document.

Engine installation

Atalanta's auxiliary will be inboard, about 18-20hp. The shaft will be offset, so the rudder will not require a hole to facilitate a propeller. This will allow the rudder to work at full efficiency when under sail. The trust has been offered an 18hp marinised Ford engine as a donation. When we receive this, if it is considered to be the most appropriate configuration it will be tested and overhauled before installation. An engine may be installed at any convenient time.

Structural changes

Keel step

Engine beds, shaft log and strut

Mast and spars

There are only three suitable timbers likely to be available. Douglas fir is the most easily and cheaply obtained, and is the best all-round timber. The below are the order of preference not taking into consideration availability:

Mast: Douglas Fir, spruce, NZ kauri

Boom: Douglas fir

Bowpsrit: Douglas fir

Gaff: Spruce, Douglas fir