

## AN CUR CHUIGE CAOMHANTAIS

Luamh adhmaid 51 troigh (15.5 méadar) is ea *Asgard*, a dhear agus a thóg Colin Archer san Iorua sa bhliain 1905. Sampla den scoth is ea é dúinn inniu de theicníc an chaomhantais. Chinn Ard-Mhúsaem na hÉireann, tar éis díospóireacht deich mbliana, cur chuige caomhantais a ghlacadh agus *Asgard* a chur ar taispeáint go statach laistigh, agus a hábhair bhunaidh a chaomhnú a mhéad ab fhéidir.

Chun *Asgard* a chóiriú le bheith ar an gcéad soitheach seol-oiliúna i gcabhlach na hÉireann, baineadh an chóiríocht ar fad, na tithe deice agus an poll stiúrtha as. Coimeádadh a mhéad ab fhéidir d'ábhar bunaidh an luaimh agus tógadh cóiríocht agus struchtúir deice a bhí ar aon dul leis na cinn bhunaidh, rud a d'fhág *Asgard* díreach mar a bhí sé nuair a tógadh é sa bhliain 1905.

Daingníodh plancáil bhunaidh chabhail *Asgard* le tairní práis báid agus duail adhmaid. Sa timpeallacht lán salainn ina mbíodh sí, d'imoibrigh an prás ar na feistis iarainn bhunaidh, agus ar na ceanglóirí cruacha a ghabh a n-áit níos déanaí. Fuair saineolaithe ó Ollscoil Cardiff éilliú clóiríd sna feistis agus sna ceanglóirí iarainn agus cruacha araon. Is amhlaidh go leanfadh an creimeadh ar aghaidh, fiú agus an bád slán tirim faoi dhíon. Bhí sí breac le ceanglóirí a bhí ag creimeadh lá i ndiaidh lae, agus bhí damáiste déanta acu don adhmaid timpeall orthu. Dá réir sin, chuaigh John Kearon, Máistirshaor Loinge agus Caomhnóir Long, i gceannas ar fhoireann de cheathrar ceardaí chun gach feisteas agus ceanglóirí iarainn agus cruach a bhaint den soitheach le go bhféadfaí é a chobhsú. Baineadh an soitheach ó chéile i bpróiseas comhordaithe le go bhféadfaí anailís, comhdhlúthú agus caomhnú a dhéanamh air a mhéad ab fhéidir.

Thuas: Bealtaine 2007: An fhoireann bhunaidh a chuaigh i mbun Thionscadal Caomhantais *Asgard*. Ó chlé: John Kearon, Oliver Ward, Brendan Tracey agus Paul Campbell.

Ar chlé: Planc cabhlach á bhaint.

Above: The original *Asgard* Conservation Project team, May 2007. Left to right: John Kearon, Oliver Ward, Brendan Tracey and Paul Campbell.

Left: Removing a hull plank.

## THE CONSERVATION APPROACH

*Asgard* is a 51-foot (15.5-metre) wooden yacht, designed and built by Colin Archer in Norway in 1905. Today, she provides an excellent example of the technique of conservation. The National Museum of Ireland, following a decade of debate, made the decision to adopt a conservation approach and place her on static display indoors, by preserving her original materials as far as possible.

During *Asgard's* alteration to become Ireland's first national sail-training vessel, her entire accommodation, deck-houses and cockpit were removed. The conservation process included saving as much original material as possible and replicating her original accommodation and deck structures. This, in effect, has returned *Asgard* to her form when first built in 1905.

*Asgard's* original hull planking was fixed with brass boat nails and wooden treenails. In a salt-laden environment, the brass had reacted with both original iron fittings and later-introduced steel fastenings. Analysis by experts at Cardiff University found that both iron and steel fittings and fastenings were contaminated with chloride. Because of this, corrosion would continue, even with the vessel out of water and dry indoors. She was riddled with actively-corroding fastenings, all of which had affected adjacent wood. Consequently, John Kearon, Master Shipwright and Ship Conservator, led a team of four craftsmen in removing all iron and steel fixtures and fittings in order to stabilise the vessel. The vessel was effectively deconstructed in a co-ordinated process, to allow her structure to be analysed, consolidated and preserved wherever possible.

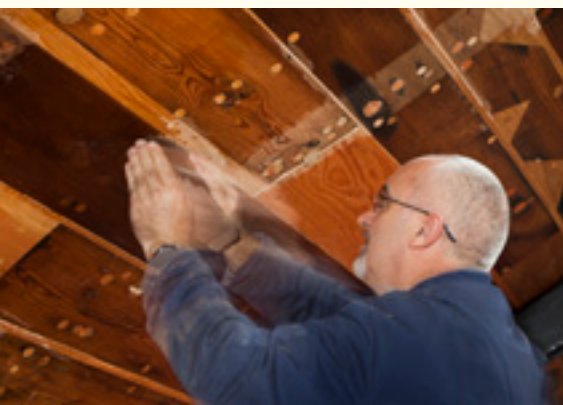


# AN TIONSCADAL CAOMHANTAIS



Chuir an fhoireann rompu an chabhail a chaomhnú, a mhéad ab fhéidir, agus chuige sin úsáideadh sábhá poll beaga innealtóra chun tolladh timpeall gach ceanglóra go tiús plainc. Ina dhiaidh sin bhíothas in ann gach planc a ardú ó na tairní, agus na tairní a bhaint amach ina gceann agus ina gceann. Cuireadh aon adhmaid lofa i leataobh agus líonadh na poill. Deisíodh aon damáiste a bhí ann agus cuireadh na plainc ar ais mar a bhí siad. Bhí an cineál damáiste céanna ó chreimeadh le deisiú sna frámaí agus i mbíomaí na deice chomh maith. Próiseas fadálach dianiarrthach a bhí ann tríd síos. Ba léir sul i bhfad bail chomh dona sin a bheith ar phlainc agus ar fhrámaí de thoradh creimeadh nach bhféadfaí an luamh a chaomhnú mar bhád seoil oibríochtúil. Ach ní chuige sin a caomhnaíodh í ach mar mhír stairiúil, agus dá bhrí sin d'éirigh linn struchtúr na cabhlach bhunaidh, mar aon le mórchuid den deic, a thabhairt slán agus a dhéanamh cobhsaí. An rogha a bhí air sin ná bád iomlán nua a thógáil a bheadh ina mhacasamhail d'*Asgard*.

Rinneadh taighde domhain ar stair an bháid le linn an tionscadail, agus baineadh úsáid as comhfhreagras cartlainne, lena n-áirítear sonraíocht lámhscríofa Colin Archer do thógáil *Asgard*. Díol suntais ab ea é gur nocht struchtúr, marcanna agus adhmaid éagsúla an bháid an t-athchóiriú agus na breiseanna a bhí déanta uirthi anuas trí na mblianta. Thairfeadh an fhoireann chaomhantais gach gné den obair i ndialann tionscadail agus i ngrianghraif agus i bpíosaí scannáin. Tá *Asgard* ar taispeáint anois faoi mar a bhí sí an chéad lá riamh. Ba é tuairim John Kearon, Máistirshaor Loinge agus Caomhnóir Long, go léiríonn sí an difríocht bhunúsach idir teicnící caomhantais a úsáid chun rud a atógáil lena úsáid arís agus chun é a chaomhnú ar a shon féin: 'one destroys in order to 'save', the other saves without destroying'.



Thuas: Ag tarraingt plean ginearálta socraithe, le huirlisí traidisiúnta líníochta don Ailtireacht Chabhlaigh.

Ar chlé: Deasbhord na cabhlach: áit chun cothromaithe a bhí clúdaithe roimhe seo ag seac tacaíochta cabhlach.

Above: Drawing general arrangement plan, using traditional Naval Architecture drawing implements.

Left: Starboard hull: fairing area previously covered with a hull support chock.

# THE CONSERVATION PROJECT

With the aim of conserving maximum hull structure, the vessel was effectively deconstructed. In order to remove the hull planking, the team used small engineers' hole-saws to bore around each fastening to the thickness of the plank. This allowed each plank to be lifted off the nails, which could then be extracted separately. With any degraded wood removed, the holes were plugged, badly-damaged areas given localised repairs and the planks put back into place. With similar corrosion damage to the frames and deck-beams as well, this proved a time-consuming and exacting process. It quickly became clear that had the approach been for operational sail use, all planking and framing would have been lost; such was the extent of corrosion-induced damage throughout the vessel. This would have made *Asgard* a full reconstruction, in effect a replica, rather than surviving with the great majority of her original hull structure and deck intact and stable.

The project was supported by extensive research into the vessel's history, including use of archive correspondence containing Colin Archer's hand-written specification for *Asgard*'s build. But as work advanced the vessel herself, in her structure, markings and different woods, offered evidence of past alterations and additions. The team recorded every aspect of the work, with a project diary and both still and moving images. *Asgard* is now displayed in her original build form. Master Shipwright and Ship Conservator John Kearon concluded that she demonstrates the fundamental difference between using techniques of reconstruction for further use against those of conservation: 'one destroys in order to "save", the other saves without destroying'.

Ar barr, ar dheis: Radharc ar *Asgard* sular caomhnaíodh é: an taobh istigh, lár báid, clébhord.

Ar bun, ar dheis: 'Cábán an úinéara' (cábán Childers), struchtúr an chlébhoird críochnaithe agus an phéinteáil ar siúl.

I bhfad ar dheis: Radharc inmheánach, ó fhráma 16 go dtí an tosach.

Top Left: View of *Asgard* before conservation: interior, amidships, port side.

Bottom Left: 'Owner's cabin' (Childers's), port side, structurally complete, with painting in progress.

Far Right: Internal view, from frame 16 to fore-end.













Ar chlé: Radharc ar an gclébhord ina bhfeictear an fho-chabhail agus an áit ar baineadh an phlainceáil uachtarach lena cóireáil.

Thuas: Ceathrú thiar an chlébhoid.

Ar dheis: An ceathrú íochtarach thiar, radharc ón deasbhord, ag taispeáint an phosta dheiridh / an stoic stiúrtha, broсна agus an ghlúin thiar, agus cóireáil a déanamh ar fhrámaí an deasbhoid.

Left: View of port side with lower underbody and top side planking removed for treatment.

Above: Port after quarter.

Right: After lower quarter, starboard view, showing sternpost / rudderstock, deadwood and after knee, with treatment of starboard frames underway.

