

Conserving our connections: the 2002-03 Mawson's Huts Expedition

On October 25 last year a team of five men and three women arrived at Cape Denison, about 2560 km south of Hobart, to conduct conservation works on Australia's icon of Antarctic heritage: Mawson's Huts. There had been a lot of pre-departure planning – briefings, seminars, even chainsaw training for some – but nothing could adequately convey to us the extraordinary fact that after 90 years these timber huts, the winter base of the 1911-14 Australasian Antarctic Expedition (AAE), are still standing.

This fact was reinforced when we saw some of the roof battens on the Main Hut (the AAE's living quarters) lifting in relatively subdued winds, and then from our own experience of living in 'the home of the blizzard' for nearly eight weeks.

The expedition's focus on conserving the buildings was perhaps the reason why the real surprise came days later, after the conservation team had taken some eight hours to clear away the compacted snow to access the Main Hut (using the aforementioned chainsaw). It was our response to the experience of being inside the Hut that was quite unexpected. The sense of awe, evidenced by our lowered voices, revealed what the pictures had failed to show: our very special feelings of connection with Mawson and his men. Our evocative surroundings reinforced that connection. Amongst the accumulated snow and ice we could see where the former owners had staked out their territory; their initials painted on their bunks. Those bunks marked with two sets of initials paid testimony to those occupants who had elected to remain at Cape Denison for a second winter to search for Mawson, who had failed to return from the far-eastern sledging journey on schedule, rather than return to Australia on the SY *Aurora* with the rest of the AAE. Although Mawson did eventually stagger back to base, arriving just after the departure of the *Aurora*, the sets of initials on the adjoining bunks of his comrades Belgrave Ninnis and Xavier Mertz were reminders of those men's tragic fate.

The placement of the second sets of initials on certain bunks also revealed that

Above right: Fitting battens to gaps in the tongue and groove baltic pine cladding, southern plane of the main hut roof.

Opposite: Field Leader Diana Patterson and archaeologist Estelle Lazer inspect the recently uncovered bunks of Ninnis and Mertz.



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the western wall of the Hut was the optimum position, close to the warmth of the stove!

In the weeks that followed the Hut became our workplace, and tools and environmental monitoring equipment invaded the space. Our work was defined by a Conservation Works Plan and included:

Main Hut structural investigation

The building structure was found to be intact and in good condition. Concerns raised about the impact of summer melts on the Hut's stability were allayed when little evidence was found of impact on the ice mass both inside and immediately under the structure.

The prevailing snow and ice conditions and presence of artefacts limited the extent of investigations of the sub-floor. However, the condition of timber stumps and building frame was found to be in good condition, as was the condition of the fixings (principally bolted connections).

Ice removal

The removal of ice from the interior of the Main Hut and adjoining Workshop was carried out with due consideration given to the effect of ice removal on the long-term structural integrity of the Hut and its fabric, structures and artefacts. The snow and ice inside the Workshop was removed to approximately one metre below the eaves to allow repairs to the rafters. Further excavation revealed the broken collar ties and original fittings from the rafters. Ice was retained on the northern wall and halfway down the eastern and western walls to provide an 'ice bank' of protection and to minimise the exposure of any artefacts left on the shelves.

In the Main Hut, soft snow and suspended ice was removed in areas where it threatened the structural integrity of the bunks. A very positive result was achieved in terms of restoring the interiors to reveal the space and fabric of the period of occupation.

Workshop roof structure

New collar ties were installed and the three broken rafters repaired. The original collar tie U-bolts were straightened and refitted and the original collar tie packing blocks reinstated.

Snow and meltwater ingress

The occurrence of a number of blizzards during the expedition provided further opportunities to identify areas of snow ingress and to observe the build-up of snow. There was little evidence of snow ingress to the Workshop, demonstrating that the overcladding of the roof during the 1997–98 expedition had been successful. However, the prevention of snow ingress to the Main Hut remains a challenging task. Of ongoing concern are the considerable shrinkage of timbers and the deterioration of the roof cladding. Repairs of a limited nature were made, including the sealing of the ridge caps and fixing of skylight flashings. Where possible, gaps in the roof cladding were sealed with timber battens; nevertheless, it is recommended that the overcladding of the Main Hut roof be given consideration.



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Top to bottom: Expeditioners dig to reveal foundations of the workshop to assess their stability; Roof repairs to the northern plane of the Main Hut; Heritage carpenter Mike Staples and Conservator Linda Clark with environmental monitoring equipment to record temperature and humidity inside the Huts.



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Environmental monitoring

The installation of various sensors and data loggers and the retrieval of data was a significant component of the conservation program. Data about temperature, relative humidity and other aspects of the Hut's internal microclimate are now being transferred weekly from Cape Denison to Australia via satellite telephone. It is anticipated that this information will contribute to the ongoing management of the Huts and the artefacts within.

Archaeology program

An extensive program of artefact cataloguing was undertaken, including the survey, documentation and photographic recording of the artefact scatters around the Main Hut and on Penguin Knob, to the northeast of the Main Hut. Several new artefacts were discovered, including cached seal carcasses and even a copy of the 1911 Nautical Almanac – in near-

perfect condition. Comprehensive cataloguing of artefacts was also carried out within both the Main Hut and the Workshop.

The very considerable data gathered from this and previous expeditions now provide an opportunity to interpret and understand the story of the lives of Mawson and his men at Cape Denison.

The team's achievement in completing the Conservation Works Plan directly relates to their skill and commitment. The compatibility of the team members and their co-operative approach to the defined tasks further enhanced productivity during our eight weeks at Cape Denison. These positive results were achieved despite the extremely windy conditions and very cold temperatures that prevailed for a significant period of the expedition – the same conditions in which the AAE lived and worked. While our technology might be a little different to that of

the AAE, the core of the Antarctic experience remains the same, and in the evenings members of our team were frequently to be found consulting *Home of the Blizzard* or Mawson's Antarctic Diaries, seeking the connections of our day-to-day work with the past.

The success of our expedition undoubtedly lies in the quality of the team on the ice. But thanks must also go to others who supported the expedition such as AAD staff including Project Manager Rob Easter, the expedition's steering committee, the AAP Mawson's Huts Foundation, and the Australian Heritage Commission. In particular, the expedition depended on the great skill shown by the captain and crew of the French Antarctic vessel *l'Astrolabe* which had been made available by the generous cooperation of the Institut Paul Emile Victor.

DIANA PATTERSON, MAWSON'S HUTS
2002-03 EXPEDITION FIELD LEADER



Our commitment continues

Cape Denison is an important symbol of the 'heroic age' of Antarctic exploration. One of only six sites on the continent remaining from this time, it is also the most untouched, with the artefacts still lying where Mawson and his men left them all those years ago. But Cape Denison is noteworthy not only for the relative 'authenticity' of its cultural history, but for its scientific significance as well. The achievements of the AAE include some of the earliest and most comprehensive studies of Antarctic geology, geography, terrestrial magnetism, astronomy, meteorology, glaciology, oceanography, zoology and botany. The first major scientific expedition mounted by Australians after this nation's Federation, the AAE also utilised numerous technological innovations and was the first party to send wireless transmissions from Antarctica. Cape Denison was also the base of numerous explorations inland, with the AAE's sledging parties mapping more than 1,000 km of previously uncharted coastline.

At this year's Antarctic Treaty Consultative Meeting, Australia proposed the designation of the whole of Cape Denison as a Historic Site under the Protocol on Environmental Protection to the Antarctic Treaty. Australia also proposed that the site be designated as an Antarctic Specially Managed Area (ASMA), including a Visual Protection Zone over the valley containing the historic AAE huts in order to enhance the area's visual catchment and 'sense of place'.

Australia is also seeking to have the AAE huts afforded more comprehensive protection with their designation as an Antarctic Specially Protected Area (ASPA), embedded within the Cape Denison ASMA. These conditions will assist in minimising the impacts of visitation and related activities on the huts, thereby preserving the rich source of research material they present for study and interpretation.

If agreed, the Cape Denison ASMA will be one of the first ASMAs to ever be formally submitted by an Antarctic Treaty nation to an Antarctic Treaty Consultative Meeting. After consultation and review by Australian stakeholders and by other Treaty nations, the ASMA and ASPA management plans will be re-presented to the Treaty for approval at the next meeting, in South Africa in 2004. Once approved, the protected areas are designated for an indefinite period, although the management plans will be reviewed every five years.

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