

# PINK DUST

by

ANTHEA WALLHEAD

It was during the 1970s that Malcolm Wallhead designed an igloo-shaped hut, ideal for setting up in remote places to escape the pressures of city life. The design was stored away until 1982, when a call was received from the Australian Antarctic Division's Field Equipment Officer. He was seeking a third quote for modifications to a fibreglass, caravan-shaped unit so that it could be flown, suspended under a helicopter, to summer research sites in Antarctica.

Malcolm persuaded the FEO that a caravan shape was not as aerodynamic as a dome shape, and offered to make one of his igloos instead. The first Igloo Satellite Cabin was transported to Antarctica aboard the Nella Dan.

Originally, Malcolm and Anthea Wallhead ran the business as a partnership called Malcolm Wallhead and Associates. Since Malcolm's death in 2000, Anthea has been General Manager, in charge of administration and marketing, with Penguin Composites manufacturing the Igloos under licence. The business is now called Icewall One.

The following story describes the completion of an unused Igloo, made after Malcolm's death, and its restoration as the Display Igloo for hire.

# PINK DUST

## Restoring Igloo No. 140 to a Display Igloo for hire

The workshop verandah had not been cleared for over ten years. Now it was loaded with junk. Rubbish from the workshops, the office and the house was heaped up, waiting for me to have enough spare cash to organise a skip so it could all be taken away. At the moment a pile three metres wide by three metres long and one metre deep blocked delivery of a generator I needed this weekend. A generator? What would a sixty-four-year-old woman want a generator for? Wasn't I a bit old for starting a project in a workshop? Not so.

It was in November, 2015, that I decided to buy back the panels of a fibreglass Igloo which had been made in the workshop. Purchased but never finished or used, the panels lay idle in other sheds for ten years, which I thought was such a waste. The original buyer, Darren Lawless, had plans to set up D'Entrecasteaux Channel Charters, using one Igloo as an office on a pontoon moored next to the Woodbridge jetty, and one on land nearby. Then he was going to use the latter as an office and fit out the floating Igloo for tourist accommodation, with the pontoon towed to secluded bays and anchored, like a houseboat.

This would have been a wonderful idea, but I assume capital ran out and the floating Igloo was dismantled and removed from the jetty. The panels of the second igloo remained unused in a shed but I knew that if I could buy them back, I could finish them off and use the Igloo for displays. Then I realised I could hire the Igloo out to others who wanted something different to house their displays, so despite my own limited capital, my reasons for buying back the Igloo become even more justified.

I contacted Darren and made him an offer which he accepted, so I arranged to inspect the panels. Finding them badly stacked on top of each other made me anxious about scratches and buckling, but I remained optimistic they could be restored. My younger son, Peter, also visited the shed with me, and we moved away some of the unwanted panels to better examine the unused ones. I then contacted Rod Mason, owner of Masons Transport in Woodbridge, who had previously carried Igloos to the Australian Antarctic Division, to meet me at the shed and bring the igloo panels back home.

Opening the gate to that field and driving over the grass to the shed, made me feel shaky. It was brave of me to commit to this project, with no guarantee of success, but I really wanted to give it a try. With my husband Malcolm dying so unexpectedly, everything seemed to stop, although sales of igloos continued because I knew how to oversee marketing and manufacture. I needed this solo venture to work to prove I could still be in charge of an Igloo project personally, although it would bring back so many memories of seeing the workshop in action again. The sound of the truck arriving brought me back to the present and Rod and I walked into the shed to sort old damaged panels from the unused ones. With Rod's help, all the panels were loaded on to the truck, driven back to the workshop and offloaded.



**Front of workshop where it all began**

Although I now owned the workshop, it was built for my husband's business in the 1980s, with a lean-to and another workshop added in the 1990s. Having these Igloo panels waiting to be finished off brought back many memories of Malcolm and his work team fibreglassing, as well as the work I did to finish off each Igloo. During manufacture, it was often my responsibility to drill the holes in the flanges and add captive nuts to the floor panels, as well as sand and clean the insides of the Igloo waiting for sprayfoaming. Once the sprayfoam and a coat of paint was applied and dried, it was my job to scallop out areas of sprayfoam around each side of each bolthole – ten per flange - so assembly bolts could be inserted by the purchaser. That meant touching up the paint I had scraped away too. I also helped Malcolm clean and pack all the panels and other accessories into a crate for freighting, often using up a whole weekend.

This time, fortunately, there would be no sprayfoam or other insulation, or floors to do, so my finishing tasks were simpler. Over the next few months I cleaned each panel on both sides and examined the surface so I knew how much work was involved in restoring it. There were only a few areas on each panel that needed extra work, so again my workload reduced. It was still strange to go down to the workshops again, spend a few hours working on the panels, gathering tools and other things I might need for the Igloo. I missed the radio going and the conversations with Malcolm and his fibreglassers and the endless coffees during breaks after laminating panels, grinding and finishing them off.

Most of the panels still needed to be trimmed around their edges, and having no experience with a grinder, especially as a left-hander, it meant a trip to a local fibreglasser to trim all the panels so they would fit together, plus make a few small parts in white fibreglass to replace those which were blue when the Igloo was first made. Once again I contacted Rod Mason, who took the panels to Channel Fibreglass in Margate. I was very lucky not to have to explain what I needed too much to the owner,

Nick Burke, who happened to employ Gilbert Strong, one of the people we employed when operating as a business, but as expected, all this work cost more than I paid for the panels.



Igloo panels set up in the old workshop, amongst left-overs from previous fibreglass jobs

Early in 2016 it was announced that there would be a new Antarctic Festival to be held in September, with events including exhibitions, films, icebreaker tours and an Expo of Antarctic goods and services in the Princes Wharf No. 1 Shed (PW1). I decided to make that the deadline for completing the igloo, ready for display. While clearing out the workshop, I found a set of polycarbonate windows which I could use for the display Igloo, plus a variety of stainless steel nuts and bolts. From the list of items I had compiled when maintaining the business after my husband died, I could work out what was needed. As expected, I did not have everything to assemble the Igloo, and I would have to visit hardware stores to buy the extras, like I had done over twelve years ago. Would I be able to ‘man-up’ again and ‘talk the talk’ with hefty hardware salesmen?

It never worried me before but at my age and with my short stature, looking up to talk eye-to-eye with much taller men and asking for things such as 100 stainless steel, dome-headed bolts  $\frac{1}{4}$ " diameter x 1" in length needed some bravery again. Having all the nuts and bolts needed written out on an order form with my business name and ABN on it helped a bit, but I am sure it left some bemused. Saying they were for a fibreglass Igloo may have left others wondering about my sanity, unless they were interested in Antarctic activities.

Over the next few months, other items purchased included carpet tiles, paint, tarpaulins, a rechargeable drill and drill bits. These costs were added to purchase of the panels, and the extra work done by Channel Fibreglass. I now had everything necessary, I thought, to finish off the Igloo, at least to final cleaning and polishing. Next I decided that if I could have the insides of the panels painted white in July, I would not have to rush work through August to get the Igloo ready for the Antarctic Festival in September. This is when I found pink dust on the workshop verandah and another burst of memories emerged.



The narrow strip of verandah cleared for the generator, next to the large scrap heap.

Before I started on this project, my older son Robert and I decided to cut off the electricity to the workshops. The extreme dryness of the previous summer had shrunk the once moist, rainforest earth around the workshops and exposed electricity cables leading down from the power pole

further up the hill. As well, cracks appeared in the concrete on the verandah and the floor of the back workshop, making the sliding doors to both sheds almost impossible to open. With no electricity in July, mid-winter, the task of drying paint without heaters would fail, so I embarked on another trek into men's territory by hiring a generator. This also meant finding a means of getting the generator to my workshop on a Friday and back to the equipment hire place on Monday. Of course, a Masons Transport truck was needed.

However, I had to clear a metre wide path from the edge of the verandah to the door of the workshop so the generator, a 5KVA to those who know them, could be offloaded from the back of the truck, slid and carried into the workshop, and back again on Monday morning at 7.30am. Heaving bags and boxes of miscellany - fibreglass scraps, bags of old insulation, rusty tins, broken equipment and toys, plastic and papers - took some time but at last there was a clear path that only needed a bit of scraping and sweeping. It was not until I started collecting up dampened dust that I suddenly realised it was pink and thought why? And then I realised, the Antarctic igloos were usually red and when the rough edges of the panels were ground off, the fibreglass became pink dust which settled everywhere...

After a few deep breaths, I continued to clean the concrete and hoped possums would not clamber on the heap of rubbish and destroy the narrow, cleaner strip. I waited through my lunch hour for the truck to arrive on Friday and helped to move the generator into the workshop. Heaving a generator

and stuck sliding doors back and forwards will be my weightlifting exercise this week, I thought with a smile. By now, the Igloo panels were joined together, so access inside was through the plastic covered door space, with extension cords, paint rollers, trays, brushes, lights, small fan heaters and a hair dryer ready for use.



Gloom in the workshop while it snows outside

The Saturday my sons and I chose to paint the interior of the Igloo was probably the worst possible – it was snowing close to sea level, strong winds were blowing nearly horizontally, and we had to keep the workshop door open so there was no build-up of paint fumes inside and exhaust fumes from the generator blowing inside. Wearing old clothes which could be thrown out after being contaminated with fibreglass dust, fumes and paint, Robert, Peter and I discussed how to go about painting each panel and I ended up painting around the flanges and edges while they wielded paint rollers.

Doing edges first soon wore me out so we started swapping jobs until all eight panels were painted inside, with fan heaters blowing all the time to try and dry the panels. We did not set up electric lights while we painted, but used sets of LED lights in old style metal lanterns, plus torches and a head lamp, to search for any unpainted areas.



Robert, left, with hairdryer and Peter holding the lantern

Robert really enjoyed using a paint roller and made sure the panels were well covered with an even thickness of paint. He had watched painters re-do some of his own house previously and was eager to try painting as well. Without this experience, Peter was not so confident at the start, but learned fast and I was grateful to both of them for helping so much and making this project a family affair. Finishing off an Igloo in the old workshop where it was made was

important to me and restored my confidence to tackle a job like this. Perhaps it would set me on a new direction – at least when the weather warmed up.

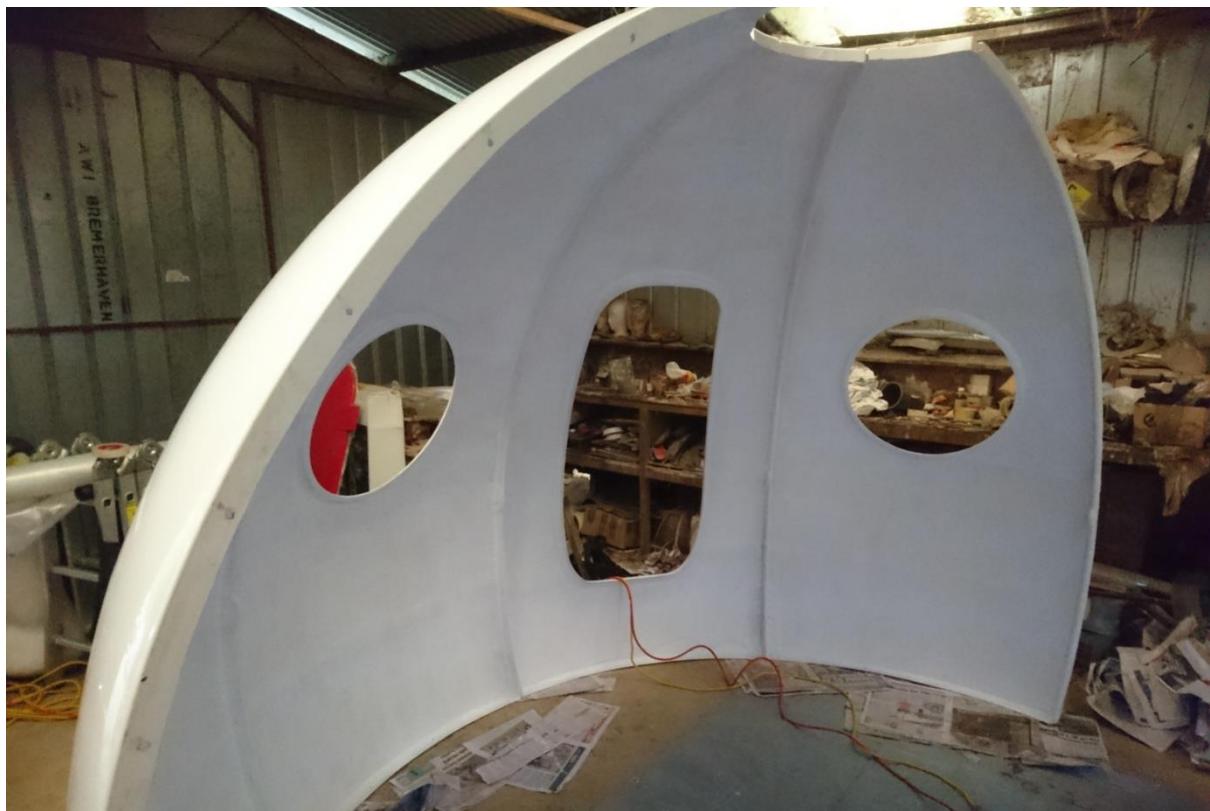
It took us about two hours to do the first coat of paint, and while Robert kept the paint drying by using the fan heaters and hair dryer, Peter and I went back to the house to make toasted sandwiches and hot coffee. We left the generator and heaters going while we sat outside in my car, eating quickly in case one of us had to run over the stop the generator if it ran out of petrol. Sitting in a car eating was a welcome break from the morning's painting but it was still very cold and wet outside.



Peter uses the hairdryer on wet paint while I hold the LED lantern

After lunch we went back to do more touching up of the paint which had dried patchily. I scanned the panels... one coat may do but it would probably look better with two. We all agreed to stop work early in the afternoon and Robert went back to his place. The next day, Peter and I started the generator again and kept on with the drying for a few more hours until there were no large areas still wet, then we stopped the generator and gathered up the cords and heaters. If another coat of paint was necessary, we would wait until the weather was warmer and dryer.

On Monday morning at 7.30, I was down at the workshop waiting for Mason's truck to arrive to take the generator back to Mal's Hire in Kingston. I topped up the petrol first and then helped Rod drag the generator back on to the truck. I was pleased we had all survived the weekend without any disasters. Now there was no excuse not to continue finishing the Igloo by securing hinges to the door and the door panel. The window rings had to be screwed into place and the windows positioned too. As could be expected, none of these tasks were as easy to complete as I hoped.



Half the Igloo after painting

I started with the four polycarbonate windows. Each had sticky-backed brown paper on either side, which when new, could easily be peeled off. However, after ten years, the paper did not want to be removed. I tried picking at the edges of the paper with my fingernails but only succeeded in tearing off tiny pieces and wearing down my nails. After several hours, I had four patchy windows with some sides clearer than others and not useable. I rang David Brunt of Eagles Plastics, who had supplied all the windows for the Igloos since they began. He suggested heating them with a hairdryer so the paper would peel off. I thanked him for such a simple solution and succeeded in clear the paper off

two, but the other two were still reluctant to give up their covers. I decided to take them up to David to see if he could fix them, as I was too tired to try any longer.

Next week I took them up and David said he would try, but if the paper would not come off, he would cut me out another two circles of plastic. When I called in later that week, David had cut me two new windows and would not charge me for them and I was very grateful for his generosity. The windows were now ready to install but first I had to position the window rings so they fitted around the hole for the window in the panel.

I had seen Malcolm do this many times and thought it could not be too difficult. I had already drilled the marked holes in the window rings. While masking tape to hold the ring in place I pushed the bit through the lowest hole and I drilled into the recessed window flange. Then I inserted a screw and tightened a nut on to it inside. One down, fifteen more to go, then three more windows.

I went inside the Igloo to see how evenly spaced the holes were on the window flange – not bad, but not all were drilled to make a regular circle of holes. Some were more inset than others, so I hoped this did not matter too much once all the screws were inserted.

However, because the windows were only single panes, not double-glazed like those in Antarctic Igloos, the recessed window flanges were too deep and I realised I would have to put in rings of some sort of sealing strip so they would fit firmly in place. I went back to a hardware store to buy some sealing strip, measured it out and stuck it in place around each flange. It would do, so over the next few days, I secured all the window rings and windows and placed a small dome-headed nut over each screw. This looked more finished and prevented people being scratched by them. This task was completed over the weekend when Peter could help to tighten all screw to the same amount. The sealing strip did not hold the windows very firmly, but I decided to try another type of sealing rubber in them, after the Expo.

Fitting the door in place turned out to be much more difficult to do single-handed. With the door and door panel curving left to right and from top to bottom, there was no problem sitting the door into its oval-shaped frame. The tricky part was attaching the hinges between the side of the door and the hingeline, which had to be screwed to the door panel. This had to be done in such a way that the door would open fully without jamming and it took the three of us hours of trial and error before the door worked well enough.

I added the hinge and staple and small padlock to the other side of the door and the panel was finished, though it was a very amateur job. I was disappointed I had no better knowledge to do it properly and just hoped the public would not criticise the work too much.

With all other pieces assembled, I unwrapped the top escape hatch from its protective bubblewrap. What a widely gathered component list this Igloo contained, I thought. Eight wall panels from the Channel Charters Igloo, an unused door from a previous lay-up, new white window rings made by Channel Fibreglass, and a new top hatch from Penguin Composites because the original Igloo was extended and had two half-top hatches instead of a full sized one.



Robert outside the finished Igloo, with windows and door fitted

The new top hatch fitted with some space around it but we drilled two holes in its flange and in two opposing tops of wall panels, so it could sit in place but be easily removed if necessary.

Although the interior walls were painted white, it was still rather dim inside so Peter and I decided to look for a battery-powered touch light – yet another visit to hardware stores. We originally thought of having a string of coloured LED lights around the top or bottom of the wall panels, but decided it was too fussy to set up at this time.

With all panels' accessories finished, I then decided to have the interior walls repainted in August, but although there was no more snow, the rain continued to fall and the atmosphere in the workshop was too damp for the paint to dry easily. We discussed a range of heating possibilities that did not include hiring or buying a generator and decided a small gas heater would do, so I went and bought one, with a pack of small attachable gas bottles that I hoped would last until the paint dried.

Once again on a weekend, we donned old clothes, prepared the paint and rollers and practised lighting the gas heater, which was temperamental but did work. Igloo windows were covered to avoid paint splashes and we completed the repainting in less than two hours. This time, we had the Igloo in two halves and could work on separate panels without colliding with each other and it was easier to see where more paint was needed. Drying off the Igloo was faster too, as we could set the heater at different levels on a box or stand, so all parts had a more even drying time. I was worried

about putting the little heater too close to a panels and making a burnt mark, but this did not happen and all our efforts were worthwhile.

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- The handwritten notes are organized into two columns:
- Left Column:**
    - CHALK 3x PLATE
    - CHECK & FOR MARK &
    - CLEAR SEEF
    - CHALK DASH APPROX 10cm
    - FIND RILHIT BIT
    - DRILL PUNCH HOLES
    - LIGHT SHOT + MAKE PLATFORM
    - PAINT IN PANELS
    - LAY OUT WINDOW MILLS
    - FIND RILHIT BIT + DRILL
    - PUT HOLLOW SICKLE SCREW IN
    - AT IN WINDOWS & FLANGES
    - LAY OUT DOOR, DOOR PANEL & HINGE HOLE
    - PUT SN NUTS
    - FIND NUTS & BOLTS
    - MAKE HOLE FOR HANDLE
    - SET HANDLE IN PLACE
    - HANDLE CATCH
    - SET DOOR IN PLACE
    - DRILL FLANGE HOLES
    - Q. HOW SHOULD?
  - Right Column:**
    - EACH TOP HOLE CLEAR OF PAINT
    - TOUCH UP WITH WHITE PAINT EVERY FLANGE
    - REDRILL & REFLAME + TAKED OFF HELICOPTER
    - PARTS CLEANED
    - MADE BACK VACUUM
    - ESSARAY
    - OTHER BATTERY
    - DRILLING SOLICITED
    - IF CONCRETE OR

#### Pink Dust notes

With less than a fortnight for the Igloo to be picked up and taken to PW1, I had to make a decision about trying to build a pallet for the igloo panels, or just put some packing around each one and loading them one at a time on to the truck. I decided on the latter because one or two people carrying a 15 kilogram panel was a lot easier than having four people lift a pallet off and on a truck. Hardware stores were becoming my second home as I bought bubblewrap to make strips to tape to each panel, plus loads of masking and duct tape to keep the wrap in place.

While all these Igloo preparations were going on, I also had to make time to find several sets of photos about Antarctic Igloos which I wanted to put on the inside walls; make signs saying 'This Display Igloo For Hire'; prepare copies of Igloo information and collect all the tapes and fastenings for the signs and photos. I lived on daily lists and tried not to leave any task until the next day. I did not want to have days of catching up instead of days advancing towards the deadline.

The large photos needed to be pegged to a wire or thin tubing which could be threaded through unused boltholes in the Igloo flanges. I raided my son's old toys and found a kite which had plastic rods – two were long enough and fitted through the boltholes but I was one short. Remembering where I had bought other kites in Hobart, I drove up to the shop and found a kite made with similar rods. They were thinner but should do. I did a practice display of photos and charts in the Igloo while it was still upright in the workshop and was reasonably happy with the effect, so I packed up all the display items and made a stack in the lounge room, ready for taking up to the Festival.

On the weekend before the Friday when the truck was arriving at 7.45 a.m. to take up the Igloo, Peter and I took down the panels, rested them on their sides and I cut strips of bubblewrap to fold over the top flanges and taped them in place. All panels were now ready in a nested stack, ready to load on to the truck. Other items were wrapped and ready too: the top hatch, the small table, two chairs, and the metre-high fibreglass penguin which would stand near the open door of the Igloo at the Expo. The short ladder, all the display photos and information sheets, assembly nuts and bolts and tools, plus food and water, were ready to put in my car. In one of the bags I put all the documents about the exhibition too: the final floor plan showed the Igloo in a central position, flanked by a helicopter and large steel trailer usually towed by a bulldozer when used in Antarctica.



#### **Mason's truck being loaded with Igloo panels and accessories for the Antarctic Expo**

Finally Friday, September the ninth arrived. Peter had taken the morning off work to help assemble the Igloo at Princes Wharf Shed. Then he would go back to work while I set up the display inside. Rod, Peter and I loaded the panels and accessories on to the truck and Rod placed the penguin in the passenger seat of his truck and strapped it in. It did not take very long before Peter and I were able to drive up to Hobart, leaving Rod to finish strapping the panels on and following us to PW1. I drove up to the entry to the shed and was checked by security before being able to drive in and park out of the way of other vehicles moving in and out of the shed, delivering exhibits of all sizes and shapes. PW1 measures 136 metres long by 27.3 metres wide and the Expo floor plan showed stalls and some equipment around the edges, with the trailer, Igloo and helicopter in the centre. The spaciousness meant that visitors could examine exhibits from all sides. With Aurora Australis, Australia's icebreaker, moored just outside, the extent of Tasmania's commitment to Antarctic research was evident to everyone.

Mason's truck arrived not long after and Peter and I offloaded the panels, laid out the carpet tiles and proceeded to set up the Igloo. Having done this a few times in the workshop, we were quite fast at doing this, so we took photos of it partly assembled which we could add to the website. At last, the white Igloo, No. 140, was on display for all to see.



#### Carpet tiles and Igloo panels in PW1

Peter and I took photos of each other standing near the Igloo door, tired but smiling. Peter went back to work after this and I continued to put the photos inside, the penguin near the door and the table and chairs to one side.



#### Icewall One Antarctic Igloo display inside Igloo

It was such a relief to have reached this point after so much running around and decision-making. I had achieved my goal with the help of my sons and the people who had helped finish off the Igloos previously and I was grateful to them all for their support. Withstanding three days with thousands of people visiting the Expo and asking questions about the Igloo was going to be tiring too, but easier to cope with, compared to the memories of the workshop.



Display Igloo set up at the Expo

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Photos: Anthea Wallhead, Robert Wallhead and Peter Wallhead.