HISTORY OR RUBBISH?
A STUDY OF WILKES STATION

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INTRODUCTION

Wilkes is an American-built Antarctic station situated 2km east of the Australian station at Casey and approximately 4000km south of Perth. It was established as a scientific research station for the International Geophysical Year (IGY) of 1957/58. At the end of the year, the Americans handed over custody of the station, including virtually all equipment and supplies to Australia. No major building programmes were initiated during the years of Australian occupation. The original buildings had been designed as temporary structures intended to last only for the duration of the IGY, and they remained habitable only with continuous, time-consuming maintenance. Even so, the condition of the buildings continued to deteriorate, and as early as 1963 the possibility of building an alternative station was raised. In 1969 the Australian Antarctic Division moved its activities to Casey, leaving behind at Wilkes, food, equipment, fuel, rubbish and even dogs, scattered over a square kilometre around the main building complex, of which 36 buildings still survive. Much of this rubbish, such as the leaking fuel-drums, explosives and corrosive chemicals are environmentally hazardous, and could easily be blown-around by the strong winds and threaten wildlife.

The pending review of the Antarctic Treaty has focussed member countries’ attention on their environmental responsibilities, particularly in the areas surrounding their stations. Of immediate concern is the status of Wilkes: does it represent an important social document as an artefact in context, or an environmentally-polluting rubbish tip that should be removed?

Following the recent discovery of explosives at Wilkes, and subsequent visits by representatives from the Army and briefly by Dr. Mike Pearson from the Australian Heritage Commission, the current heritage policy on Wilkes was finalised. This recommends that the remaining buildings be left to decay under the effects of the elements, and that dangerous materials be removed. Of necessity, financial and logistical factors have had a strong bearing on this decision.

PROJECT VISIT

At this time the Queen Victoria Museum and Art Gallery was involved with the conservation of archaeological material excavated on Heard Island, and the Division invited the museum to further broaden its involvement by initiating a research project on the Antarctic continent, in particular at Wilkes.

In December 1988, we visited Wilkes Station for four days to record and document the structures and artefacts at the station. Our visit was to precede the “clean-up” of Wilkes (planned for 1991/92), as is recommended by the burra Charter which stipulates that any “work on a place must be preceded by professionally-prepared studies of the physical, documentary and other evidence, and the existing fabric recorded before any disturbance of the place” (Article 23).

Our priorities were to photograph, describe and analyse the site as thoroughly as possible. It was anticipated that we would have insufficient time, and the snow cover would be too great, to record all aspects of the site in detail. Furthermore most of the contents of the buildings are permanently frozen in ice, and would need to be deliberately melted before they could be archaeologically documented. By assessing historical, archival and oral sources and examining on site the physical fabric and layout of the buildings and environs, we were able to gain an understanding of how the site functioned as an Antarctic station.

The site is most strikingly defined by the physical fabric of the buildings and associated artefact scatter. It consists of a central building-complex partially buried in snow, comprising accommodation, work areas, scientific laboratories, a generator-building and a chapel. To the west of the main complex lies the meteorological buildings, balloon-release platform and associated hazardous chemicals used in the generation of hydrogen. On the ice-free rocky platforms to the north and south are the fuel-bladder platforms, random and the food- and materials-supply platforms. Immediately to the east are a number of radio antennae, remains of a geodesic dome, dog lines, 4 James-way Huts and the Jolly Hut (transmitter building). The landing area lies to the south-east of the site and a large quantity of material, some still in its original packing crates, lies buried in the snow there. Two crossovers on a nearby hill mark the graves of an Australian and American who died while resident at Wilkes. Further east, approximately 0.5km from the main station, the main rubbish dump is concentrated. This huge rubbish area appears to be segregated into domestic and industrial waste piles. The main bulk of the estimated 7000 oil and fuel drums, many hidden under snow, lie here. North-east of the Jolly Hut, there is an explosive dump that now lies widely-scattered after an unsuccessful attempt to detonate it.

Historical research in Antarctica has focussed almost exclusively on the relics of the early Antarctic explorers. Wilkes offers a unique opportunity for heritage specialists to study a substantially-intact site dating from the IGY, a
date that signalled the beginning of an era dedicated to peaceful, international scientific research.

Unlike the other Australian stations Mawson and Davis, which have been occupied for 30–odd years, Wilkes was occupied for only a brief 10-year period and therefore the buildings and artefacts encapsulate the lifestyle at this particular and significant time. Due to the custody agreements between America and Australia, and the transfer of the Australians to a newly-established station, much of the equipment and supplies remain where they were abandoned.

The assemblage of artefacts and their spatial relationships, both within the buildings and around the site, show the context of how and where they were used, and from them it is possible to deduce the operational mode of the station. Since being abandoned, the site had been virtually frozen in ice as a sealed deposit. Some of these deposits are partly-visible, but much remains inaccessible within the buildings. It is rare to find an Antarctic station with such potential for interpretation.

Within the vast wilderness of Antarctica, it can initially be disturbing to encounter this abandoned and untidy station. From an architectural viewpoint, Wilkes has little aesthetic appeal. To the casual visitor, it can seem little more than partially-buried buildings and a scatter of miscellaneous objects. No attempt has been made to provide information about the station at the site. We would like to suggest this is essential, if visitors are to gain an understanding and appreciation of the site. Ultimately, the care and respect bestowed upon historic sites is dependent upon how visitors interpret what they see.

Many of the artefacts, when viewed in their context, build-up the picture of a lifestyle that existed in this harsh environment. We cite a few examples. Individual items such as a do-harness, dog pemmican and a sled are interesting finds in their own right, but more so when interpreted in association with other relevant items and information. Huskie dogs were used at Wilkes to pull sleds both for essential transport and recreation. Dogs were chained to a dog-line, the remains of which are evident between this line, we were able to locate two of the individual dog name plates, one of which, 'Twigg', was named after Doug Twigg, veteran expeditioner with whom we recorded an oral history interview on our first day at Wilkes. Each year, melting snow uncovers remains of singed dogs. When activities were moved to Casey, it was decided not to continue to use dogs. Healthy dogs were taken to Mawson where their descendants are still in use, and the remainder were killed, but unfortunately not disposed-of thoroughly. Instead of placing them on the ice where the bodies would be carried out to sea, they attempted to burn the dogs; this was hampered by snow, and hence the gruesome remains which have been exposed in the last few years.

Many of the objects lying-around are intrinsically interesting when viewed from the context of living in Antarctica. For example it may seem surprising to come upon a number of desalination units near the landing site, one still in its original packing-case. Access to water is often a problem in Antarctica, and the Americans originally had plans to desalinate sea water. For unknown reasons they were never used, and water was obtained initially by melting snow in an asphalt kettle, and later also from let lakes a short distance away.

The geodesic dome was originally constructed as a temporary store to be covered by a tarpaulin. The chicken-wire that is visible around the remains of the structure indicates an adaption for a different use. We discovered that an American biologist, studying the ecology of Adelie penguins, adapted it to become a penguin coop.

The rubbish tip is physically separated from the main station complex by a large hill. Unlike the visually-evocative station complex the tip presents a sprawling, unordered image. However, a mine of information lies buried there. Material visible included bulldozer and tractor parts, caterpillar tracks, sledgers, a possible DUKW and radio transmitters with the manufacturer's details still attached. These transmitters were housed initially in the main complex, and later in the radio transmitter building now the Jolly Hut. Food containers, broken glass bottles, and empty beer-cans appeared to be in separate piles, documenting consumption habits. We were there just as the melt began; however in another couple of months, much more material would have been exposed. In contrast to buried material elsewhere at the site, that at the rubbish tip has lost its original context. Through a process of methodically recording and removing material, additional information could be collected that would aid in the interpretation of Wilkes. One should however consider whether to do so would destroy the integrity of the site. At this stage, this option is unlikely to be considered because of the prohibitive financial cost.

CONCLUSION

The amount of material left behind at Wilkes reflects an age when people generally were less aware of the environmental dangers posed by accumulation of rubbish, especially in wilderness areas. It can also be explained by the terms of the custody agreement between America and Wilkes which stipulate that all property, equipment and unused supplies remained the property of the United States Government. Furthermore, the power supply at Wilkes was 110 volts and the equipment was incompatible with the 240 volts system used at Casey.

The environmental problems that the proposed clean-up hopes to address are to remove dangerous chemicals (gils, caustic soda, iron silicate, acetylene etc.) that are threatening to leach onto surrounding snow, and to remove unstable objects that could potentially become windblown missiles. It has been estimated that this operation will take 16 men, and one summer season, to accomplish. Operating within tight financial constraints, it is unrealistic to
expect the Antarctic Division to divert substantially-greater amounts of their limited budget from scientific research into the care of Wilkes. Attempts to restore Mawson’s hut and Scott’s hut by removing interior snow have been fraught with problems, and New Zealand has needed to send a ranger to Scott’s hut each year to carry out essential maintenance.

As early as 1963, the suggestion of an alternative station to Wilkes was raised due to the deteriorating state of the buildings with their heavy maintenance demands. The time that was spent on maintenance is reflected by the many layers of repairs to the Jamesway Huts and the plywood patches that dot the exterior surfaces of the main buildings. Layers of bitumen covering the roof show how difficult it was to permanently weatherproof the buildings. The wind can blow extremely strongly at Wilkes, scouring the paint from the wooden walls facing in the prevailing direction and eroding unprotected surfaces to produce a condition known as Antarctic fur. If the site were to be conserved these maintenance problems would be encountered again and need to be overcome. In the present circumstances, the agreed-to solution for Wilkes seems a suitable compromise that preserves the site for future potential research.