



### **The Lake Vanda Swim Club**

There are many unique geologic and hydrologic features associated with the surface of our Earth. For centuries, scholars and scientists have struggled to quantify and understand the processes involved as these phenomena have been discovered. At the beginning of the last century, attention began to focus on the Antarctic continent, as explorers such as Amundsen, Scott, and Shackleton returned from their expeditions with fabulous stories and records of their discoveries. That is not surprising, given that Antarctica has since proven to be the highest, coldest, driest, and windiest place on earth.

The early 1950's were a time when acute international scientific curiosity led to large scale efforts to understand everything from the frozen polar environments to the frozen depths of outer space. To guide this effort, a cooperative venture known as the International Geophysical Year (IGY) was initiated. Beginning on July 1, 1957, international scientists from eleven different fields in earth science participated, working together toward these goals.

The IGY triggered a simultaneous eighteen month "Year of Antarctic Science" which drew participation from seventy different countries. Although research was conducted at many locations within Antarctica, it centered around two areas: the South Pole and the Ross Sea region.

The United States and New Zealand established their operational bases on Ross Island in the Ross Sea. This location was significant for two important reasons. First was that Ross Island was usually as far south as the seasonal sea ice would melt, and open water would extend during the short Antarctic summer. Second, it was near the Dry Valleys, a 4800 square kilometer, relatively ice-free portion of the continent near the coast.



Taylor Valley

The Dry Valleys lead from the Ross Sea inland to the East Antarctic Ice Sheet, allowing scientists relatively easy access to study cold related aspects of soil, wind, water, and ice.

Of the several dry valleys, the Wright Valley is unique in that it contains huge frost polygons, ancient mummified seals, the seasonal Onyx River, and Lake Vanda, a relatively small snowmelt formed lake.

Lake Vanda measures approximately eight kilometers in length by one and one half kilometers in width, and is 76 meters deep. It is perennially ice covered but during most summer seasons open water rings the shoreline. That feature was the motivation for the formation of the Lake Vanda Swim Club.



Lake Vanda and the Wright Valley

Typical of other dry valley lakes, Lake Vanda has no outlet. Its level rises and falls with the Onyx River inflow which is fed by seasonal glacial melt. The surface ice acts as an insulator in winter and allows extensive heat transfer during the long Antarctic summer. The result is a water temperature near the lake bottom that averages around plus 25 degrees C. or 77 degrees F.

There is also a saline anomaly. Salts from evaporating surface water fall to the lake bottom, allowing the upper layers to remain fresh while the layers near the bottom are more salty than seawater. This density difference prevents any water mixing and thus maintains the steep temperature profile.

The IGY sparked a tremendous interest in the dynamics of the dry valleys. By the mid 1960's the U.S., New Zealand, Japan, Italy, and Russia were conducting research in the region. In 1968, under the auspices of the Ross Dependency Research Council, New Zealand established Vanda Station near the Onyx River at the east end of the lake. It continued to be a major base of operations for the region until it was decommissioned at the end of the 1990/91 field season.



One of the Lake Vanda Station huts

It is easy to see how the remote and tedious aspects of spending a full field season at Lake Vanda Station could get on one's nerves. To help maintain morale through friendly rivalry, Colin Bull started the Royal Vanda Swimming Club. Over the years it became known as just the Lake Vanda Swim Club, but the initiation didn't change much. To join, all you had to do was step outside, strip, and wade nude, out into the icy lake until you could completely submerge. Some hardy souls even swam out to the edge of the ice and back. After a teeth chattering trip back to shore for a warm towel, you were awarded membership and became eligible to wear a patch attesting to your prowess.

By 1994 the only evidence of the prior existence of Lake Vanda Station was two refuge huts located near the original station site. Over the years, these huts were used by various research field crews who carried on the Lake Vanda Swim Club tradition. In lieu of receiving the patch, new members would sign the inside of the main hut door.

In recent years, the effort to maintain the Antarctic environment in a pristine condition has led to rules governing the behavior of researchers while on the continent, particularly while in the dry valleys. It stands to reason then, that the tradition of joining the Lake Vanda Swim Club has disappeared along with the existence of Lake Vanda Station.



Weather monitoring station at Lake Vanda

Today, research in the dry valleys is conducted mainly by small field parties utilizing mobile camps. Personnel, equipment, and supplies are flown into and from the area by helicopter, leaving little trace of their occupancy.

When the helicopters have come and gone, there is an eerie quietness, except for the low moan of the wind. You feel a sense of peace and solitude. At Lake Vanda, the two refuge huts still remain. There is open water around the edge of the lake. The sun is warming the rocks along the shore. You look around. You are all alone, and there just might be room for one more name on that door.

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