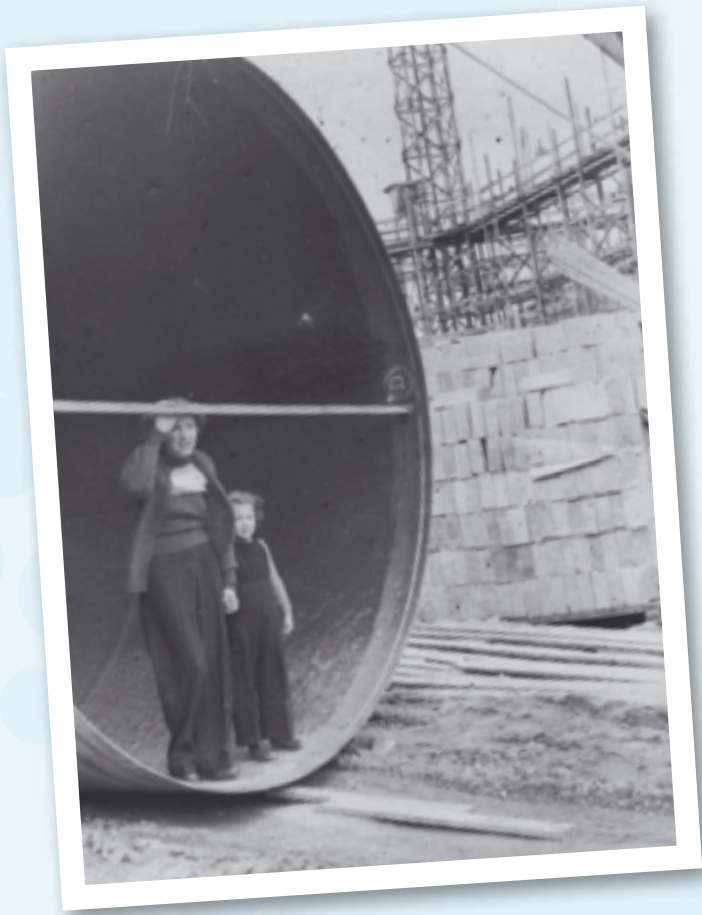


Snowy Story

COLLECTING OBJECTS FROM THE SNOWY SCHEME



Christine Filiamundi's family photos from the Guthega project offer a human scale to the vast industrial undertaking that was the Snowy Scheme.
Photo: Christine Filiamundi Collection

The National Museum of Australia tells Australia's national stories. A major story in the twentieth-century development of Australia is the Snowy Mountains Hydro Electric Scheme. Over the past couple of years, as part of a broader targeted-collecting project focusing on Australia's water history, the Museum has been collecting Snowy objects. Through these objects the Museum can more effectively explain the Snowy Scheme to visitors.

The Snowy Scheme, built over 25 years from 1949 to 1974, was a huge undertaking for a nation still recovering from the Second World War. The Scheme, with its seven power stations, 16 dams and 225 kilometres of aqueducts and tunnels, ranks among the great engineering achievements not only of Australia, but of the world. Consisting of two separate but inter-connected projects, the Snowy-Murray development (diverting water from the Snowy River to the Murray) and the Snowy-Tumut development (diverting water to the Murrumbidgee system), the Scheme creates hydro-electricity and irrigation water. It cost \$820 million and was built on time and on budget.

Yet the Snowy means more than that. It helped to create multicultural Australia. Of the 100,000 workers on the Scheme, two-thirds of them were from overseas, coming from 30 different countries. Many of the Snowy's people rebuilt war-torn lives on the Scheme. The Snowy also greatly developed Australia's manufacturing and technical capacities and, despite the involvement of overseas engineering and construction consortia, the project saw the creation and growth of a number of Australian companies. Some of the technical breakthroughs on the Scheme have since been exported around the world. The Snowy pioneered the practice of erosion control through revegetation, and made seatbelts compulsory in work vehicles. The Snowy also brought in its wake a number of environmental problems, such as greatly reduced flows in the Snowy River and other streams. Two towns – Adaminaby and Jindabyne – were drowned by the Scheme and had to be replaced by new ones.

The National Museum's project aimed to collect a wide range of objects which would help to reflect the investigation, design, construction and social aspects of the Snowy. Objects were obtained from a number of private donors who had worked on the Scheme, and from two corporate sources, Snowy Hydro and Snowy Mountains Engineering Corporation. Objects were also obtained through auction and purchase.



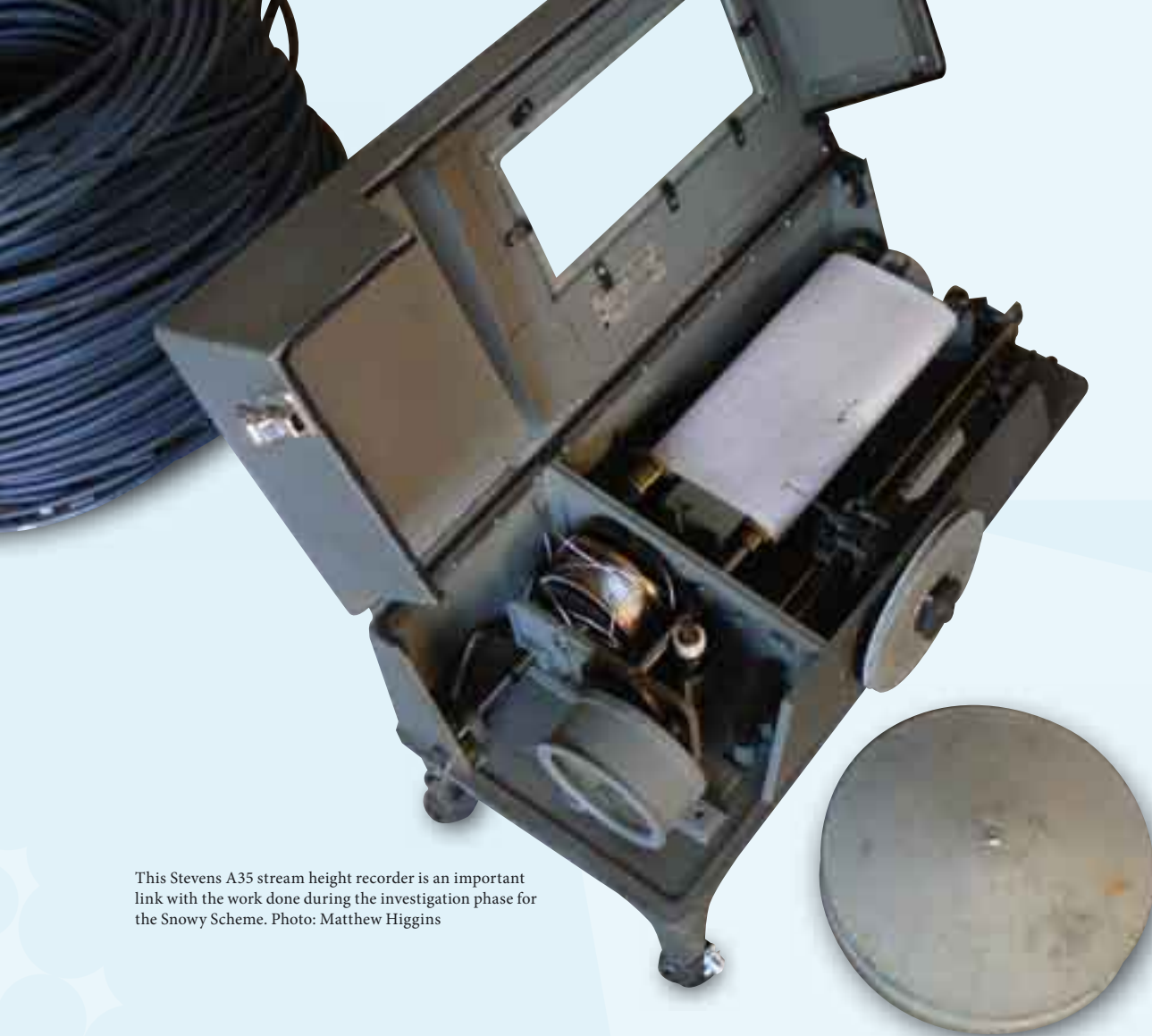
Eucumbene Dam is the centrepiece of the Snowy Scheme. Photo: Matthew Higgins



This fine topographic model of the Snowy Scheme was given to Prime Minister Ben Chifley at the inauguration of the scheme in October 1949. Photo: Matthew Higgins

On 17 October 1949 the first blast was fired at the site of Adaminaby (now Eucumbene) Dam. The event marked the inauguration of the Snowy Scheme. Dignitaries attending were presented with topographical models of the Scheme. One dignitary was Prime Minister Ben Chifley, and his model, made of bronze and timber, has been acquired by the Museum. The model depicts the Scheme as it was originally configured, not as it was subsequently built, which gives it added significance. It also indicates the location of dams and power stations with lights – which still work! The Snowy Mountains Authority (SMA) had only been formed two months before, so must have acted swiftly to be able to commission such fine models for Australia's leaders. It is especially appropriate that the National Museum should have Chifley's model, as it was he who pushed the Scheme ahead and was deeply involved in the massive post-war immigration intake that helped to make the project viable.

A very different model is that of Guthega Dam and Power Station. It is huge – over four metres long and two high, and originally had a pump which sent water circulating through it. It was the first public display model built of a major element of the Scheme; Guthega was the first dam and power station, completed in 1954 by a Norwegian engineering firm, Selmer. The model depicts the project as originally planned, with three turbines and penstocks, not two as constructed. The Guthega model illustrates the SMA's concern not just to explain its projects to the public, but to win the public's support, especially as a constitutional cloud



This Stevens A35 stream height recorder is an important link with the work done during the investigation phase for the Snowy Scheme. Photo: Matthew Higgins



Medals like this one were awarded to Snowy workers when world tunnelling records were broken. Photos: Courtesy of Noble Numismatics

hung over the Scheme in the early years. Having stood in Guthega (Munyang) Power Station for decades, the model was donated to the National Museum by Snowy Hydro.

One engineering breakthrough which has since been exported overseas was the rockbolt. Rockbolts were used to hold rock together in tunnels and underground power stations, avoiding the need for concrete lining and thus saving time and money. The rockbolts worked to compress the rock, forming basically a self-supporting structure as in an arch. Several examples of rockbolts were donated to the National Museum by Snowy Mountains Engineering Corporation (SMEC). We also acquired from SMEC a number of scientific instruments, including strain gauges, housed in the former Snowy laboratories in Cooma.

The rockbolts are not the only objects acquired by the Museum that help to show the underground work on the Scheme. There are also two hard hats (donated by Snowy personality Frank Rodwell), a gelignite box (from former engineer Ken Johnson), a tunnelling world record medal awarded to A. S. Novikov in 1956 (bought at auction), and a 'pelican' (donated by Bill Fegan – a member of the Museum's staff who worked on the Talbingo project). 'Pelicans' were a form of light pick *cum* shovel and rake, used particularly for pulling down loose rock after blasting in the tunnels. They were brought into Australia originally by the Norwegians working on the Guthega project. Meanwhile another tool collected is the blowlamp used by electrical fitter Stan Goodhew at Eucumbene Portal in 1954.

This 'pelican' donated by National Museum staff member Bill Fegan is a rare survivor of a type of tool brought into Australia by the Norwegians who built the Guthega project. Photo: Matthew Higgins



Publications like these, from the Sue Hughes Collection, form a significant part of the National Museum's Snowy acquisitions. Photo: Matthew Higgins

During the investigation phase of the Snowy Scheme, planners needed to know just how much water and snow there was in the mountains, so that dams, tunnels and pipelines could be designed accordingly. Hydrologists used a range of stream-gauging instruments to measure streams. Some, like the Stevens A35 acquired under the National Museum project, measured changes in stream height; whereas others like the Ott meter and other similar meters, measured current. Snow was measured in snow-survey tubes, a set of which, with accompanying tool kit, we were fortunate to acquire, again from Snowy Hydro.

The hard work was not all physical. It was also intellectual, and an engineer's slide rule and a draughtsman's t-square illustrate this side of the Snowy workforce. The Scheme's lighter side is reflected in objects like the A. J. Daffy Cup, a cricket cup which was competed for by local teams, and by a beer tray – donated by the Snowy's longest-serving employee, Les Price – which in its life would have carried hundreds, if not thousands, of middies at the Cabramurra wet canteen when workers relaxed. Snowy workers also had a sense of humour, as illustrated by the road sign for the 'Siberia Snow Clearing Station' which stood near Dead Horse Gap. On the other hand, a frying pan donated by Jindabyne's Norm Kopievsy indicates more fundamental needs and has connections with the Jindabyne Dam construction camp.

We acquired a number of paper records from the Snowy. These include project reports, souvenir publications marking the opening of major Scheme projects, invitations to openings, and SMA publications copiously illustrated

with the photos which the SMA built up into a massive and very valuable photographic archive. Private photographs from Snowy workers or their families – like those donated by Christine Filiamundi relating to Guthega, Joe Gordon's photos of various construction camp sites, and Sue Hughes's photos showing life in Cabramurra and Island Bend – are another important element of the collecting project. Engineer Keith Montague donated the two-volume manual that he prepared for the Queen's tour of the Scheme in 1963. It shows in marvellous detail the preparations for the Queen and Duke, and how the SMA did not leave anything to chance in its planning.

Numbers of other donations were also acquired, and help the Museum's Snowy collection to be a highly significant repository of material culture that depicts a broad range of aspects of one of Australia's most important engineering projects. The Snowy Scheme was perhaps the pre-eminent manifestation of the pro-development ethos that was such a part of Australian life up to the 1970s–1980s. Today, attitudes to dams and large-scale developments generally are quite different. The Museum's Snowy collection illustrates not just a major construction project but a distinctive period in Australians' relationship with their environment.

Matthew Higgins joined the National Museum of Australia as Senior Curator, People and the Environment, in 2004. He is presently a Research Fellow in the Museum's Centre for Historical Research, writing a book on the ACT high country, *Mountain days, mountain ways*, to be published by NMA Press in March–April 2009.