

GOLD

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WHITE GOLD: THE EUROPEAN'S DREAM OF THREDBO

Once a magnet for snow dreamers, Thredbo, a village in the Snowy Mountains in the state of New South Wales is now facing a decline in its infrastructure, with poorly maintained ski terminals, downgraded chairs lifts, rundown snow facilities and the loss of clientele who prefer to ski overseas. Can anything be done to change this trend, to revive the European dream for the "white gold" in Australia? What can Thredbo Village learn from its own history?

In 1962, Dutch engineer Gerardus J. (Dick) Düsselddorp employed the Sydney architect Harry Seidler to design the Lend Lease Company Lodge at Thredbo. This event marked Dusseldorp's full commitment to the development of the Crackenback Valley as the first Australian, year-round Alpine resort. One year earlier, as the prime financier of Lend Lease, Düsselddorp signed a long-term lease with the Australian government, to develop the village of Thredbo. This venture strengthened Düsselddorp's involvement with the Snowy Mountains and indeed created a golden opportunity. Ten years earlier in 1951, he began his Australian adventure as the Construction Manager for Civic & Civil Building Company - an Australian branch of the Dutch Bredero Construction Company. Civic & Civil was responsible for the construction of Cooma's temporary workers' cottages associated with the Snowy Mountains Hydroelectric Scheme. As the "heroic" Australian scheme proceeded from its inception in early 1949, Bill Hudson (later Sir William Hudson), Commissioner of the Snowy Mountain Authority, was looking to realize housing for professionals, contractors and skilled laborers imported mostly from Europe.

While extensive scientific research saw the collaboration of surveyors, hydrographers and geologists with mining, electric and civil engineers in the realization of dams and tunnels, the construction of the 21 camps and villages were, by contrast, the result of merely pragmatic considerations. This was pointed out in 1960, in the article 'Case Study Development in the Snowy' penned by two Sydney architects Peter Keys and Tony Moore, who critically evaluated the lack of an overall plan for the design and construction of the workers' cottages, resulting in very poor living conditions. Over the period 1949-1974 during the construction of the Snowy Mountain Scheme only a few towns such as Khancoban, Jindabyne and Adaminaby, were designed by consulting architects and town planners.¹ The story of Thredbo on the other hand originated in the dream of a group of Europeans, recruited for their professional skills and skiing abilities to work in the Snowy Scheme. Thredbo's protagonists drew from the early visions for the perfect snow run of Tony Sponar (Czechoslovakia) and Charles Anton (Austria), the Master Plan of Eric Nicholls, the financial involvement of Dick Düsselddorp (Nederlands) and the engineering expertise of Albert Van der Lee (Nederlands). The result was a true collaboration between planning, architecture, engineering, construction and finance: an Australian story of economic growth and confident optimism. This paper proposes that a study of the history of Thredbo in relation to its present situation, has the potential to give this place another opportunity to look toward the future with a long-term plan for prosperity - in the shadow of two big threats – climate change and lack of upgraded infrastructures.

In the Spirit of the Snowy

Considered by tourist experts as the best ski and trekking resort in Australia, Thredbo has been one of the towns built in the Snowy Mountains to entertain its visitors all year round. Nevertheless, how much do we know about its beginning? The area was inhabited by indigenous people from the Yaitmathang, Wolgal, Waradgery and Ngarigo nations for 10,000 years. During the spring and summer seasons it was the ideal place for ceremonies and food hunting, in particular for the Bogong moth. In the 1820s the Thredbo Valley and Thredbo River became ideal locations for early European settlers and grazing leases. Only three decades later during the late 1850s gold rush, this area emerged as one of the most sought after Australian destinations for gold diggers, until in 1949 Australia's most significant infrastructure project, initiated by the Snowy Mountain Hydroelectric Scheme Authority, opened the Alpine Way. Consequently, vehicular access to the Thredbo Valley brought in a new population and experts from diverse scientific, engineering, planning and architectural backgrounds - new towns and villages were founded to accommodate a large number of people during the development of the Snowy Scheme venture. How important was this to the future of Thredbo? The scheme opened up the mountains with the construction of the Alpine Way road in 1954 and attracted a large number of European migrant professionals and workers who combined their skills and expertise with their skiing abilities and passion for the snow. This association between the Snowy Scheme and a group of visionary people would prove decisive in the beginning stages of the development of Thredbo Village.

The Snowy Mountains have been associated for long time with European migrants, their enthusiasm, dreams, risk taking and drive for the Australian opportunity. In the duration of 100 years from the 1850s to the 1950s, the Snowy attracted Europeans with their gold rush fever, the heroic Snowy Mountains Hydro-electric scheme and the development of Thredbo Village. In 1859, the discovery of gold drew to Kiandra a number of migrants who settled in the Australian Alps.² Kiandra was the only village during the gold rush, which combined gold-mining and snow activities. This was emblemized by Banjo Paterson's poem *The Man from Snowy River*. By April 1860, Kiandra, the highest town in Australia at 1400 metres above sea level, had a population of 10,000. However, all soon finished with the end of the gold rush just a few years later.³ By the 1950s only five residents remained and in 1966 the Kosciuszko National Park incorporated Kiandra as an abandoned town with a few scattered, indicative ruins still visible – a trace of the past.

Snowy Mountains Hydro-Electric Scheme

The construction of the Snowy Mountains Hydro-electric Scheme between 1949 and 1974 is one of Australia's most significant infrastructure projects and arguably, one of the world's greatest engineering achievements. Historically, in Australia the word infrastructure resonates with the beginning of European settlement and it changes over time to encompass the necessary First Fleet of ships to start the colony (1788), the realization of a port (1800s) and road facilities (1826) to initiate the first settlements, the development of the road system, the construction of bridges and the establishing of the first railways (1857) to connect people and places.

At the time of the construction of the Snowy Mountains Scheme, Australia as a Federation of States had already learnt how to prioritize the choices for infrastructure. In the 1950s, water and electricity would have been basic necessities for a growing country. The Snowy Scheme was inspired by the Tennessee Valley Authority, established in 1933 by the American Congress as the largest public USA power provider. The TVA was a much larger power generation scheme comprising 30 power stations including coal-fired steam, hydro and nuclear⁴, while the Snowy Scheme had just two major functions: the provision of water for irrigation and the generation of electricity. For Australia, the Snowy Mountain's Hydro-electric Scheme marked in two ways a passage from the Old World to the New: ⁵ it was an engineering achievement and in the words of the Australian historian Manning Clark, it was 'an inspiration to all who dream dreams about Australia.'⁶ At the same time the scheme demanded a large workforce, which the country at that

time was not ready to provide, thus initiating the country's greatest experiment in mass migration. With the words of the journalist, writer and academic Siobhán McHugh:

It took 100,000 people twenty-five years to build the Snowy Mountains Scheme. Although it is recognised as an engineering wonder of the world, it was just as remarkable for its social engineering - most of the workers were migrants from 30 countries in Europe, who managed to put aside wartime enmities in order to carve out a new life here. The Snowy is a monument to multiculturalism, mateship and endurance.⁷

This was certainly true for the large number of migrants who came to Australia searching for new opportunities. Surveyors, hydrographers and geologists were mostly recruited from European countries for their expertise, resilience and ability to work in adverse climatic conditions, in particular the necessity for skiing to work when it snowed, something that their Australian counterpart was less able to offer. Thus the Scientific Services Laboratory set up in the town of Cooma (NSW), employed a number of good skiers including Tony Sponar who later became one of the main protagonists of Thredbo.

The Snowy Scheme was located mostly in mountainous terrain in the south-east corner of the state of New South Wales, south of Sydney and Canberra. The Scheme was designed to divert the waters of the Snowy River from its path to the Pacific Ocean on the east to the Murray and Murrumbidgee river systems, westwards. By turning to the west, the Snowy waters channeled through the Great Dividing Range by means of tunnels, solving two main economical problems by irrigating the dry inland and producing clean renewable energy with the generation of hydro-electricity. In an area of 3,200 square kilometers, the Snowy Scheme involved the construction of 16 large dams, 7 power stations – two located underground – 80 kilometres of aqueducts, 145 kilometres of tunnels, 2000 kilometres of roads: a large infrastructure project, heroic in scale and visionary in its execution. In 1999, fifty years after the beginning of the Snowy Scheme, The Australian Academy of Technological Sciences and Engineering held a symposium in Cooma, one of the largest towns involved in the development of this infrastructure project. With the inspiring title “The Spirit of the Snowy Fifty Years On”⁸, a group of scientists, engineers, industrialist and economists exchanged ideas and experiences about the innovations achieved during the construction of the Scheme. The Symposium's Proceedings celebrated the heroic, visionary and determined attitude of all the people involved during the project mostly from European background.

Science/Engineering achievements

The Snowy Scheme was extremely clever in solving the problem of water and energy with simple ideas, which could be summarized as catching the water from the snowmelt of the Snowy mountains as a naturally renewable resource, collecting the water by dams and aqueducts, storing the water in reservoirs, diverting the water for irrigation and travelling the water to four power stations for the production of energy.

From these simple ideas, the Snowy Scheme generated complex earth and rock excavation techniques including rock-bolting, an inter-connected structural arch, which greatly reduced the need for concrete lining to support unstable rock, and for breaking world records in hard rock drilling. The tunneling speeds were partly credited to American contractors, who introduced a streamlined round-the-clock system centred on a three-level drilling platform, the “Jumbo”. Ambitious concrete constructions, precise electrical generator installations and a sophisticated development of technical engineering as well as an incredible achievement of social engineering were all achieved during that period. The Snowy Scheme brought huge changes in the area starting from the small mountain communities, which saw three towns disappear inundated by the water, the relocation of a town (Jindabyne) and the development of new towns for professionals, contractors and workers involved in the project.

In an article titled “Case Study: Development in the Snowy” published in *Architecture in Australia* in March 1960, Sydney architects and authors Peter Keys and Tony Moore⁹ evaluated the area after their earlier fieldtrip in 1959. This 1960 snapshot reveals the extent to which the new towns were developed with temporary constructions, which were dismantled as soon as the work in the area was finished. The article by Moore and Keys provides a critical evaluation of the diverse approaches undertaken by the Snowy Mountain Authority in relation to the large amount of research and data collected for the scientific aspect of the Snowy Mountains Scheme, and the comparatively small amount of consideration given to the design and construction of the buildings - in particular the private residential cottages for the workers and their families.

The design and construction of the workers' cottages were left mostly to the main national or international contractors involved in the realization of the tunnels and dams. It was only in the 1950s that the Dutch company Bredero was engaged to provide prefabricated cottages designed for the winter temperatures. Bredero sent a young Dick Düsseldorf to organize and supervise the overall project. It was from the Snowy Scheme that Düsseldorf eventually started his own construction company Civic & Civil, developing in the years his working *motto*: from design and construction to finance and maintenance. His personal and business involvement with the Snowy Mountains grew when he heard in the early 1960s of the Thredbo Village dream and initiative .

Starting Thredbo

In 1951, the Czech born hydrologist from the Snowy Scheme and Austrian ski instructor Tony Sponar and the Austrian born Charles (Karl) Anton (1916-1966), founding president of the Ski Tourers' Association, initiated animated discussions and long summer and winter walks around the Kosciuszko mountain from Charlotte Pass to the Dead Horse Gap. They shared a love for the snow country although in different ways. Anton's obsession with the construction of alpine huts situated in strategic positions around the Snowy mountains was clearly an elitist project for a limited number of skiers. Sponar's dream of the establishment of a modern winter resort "where the ski runs would be long and challenging and easily accessible " was addressing a large number of skiers with different levels of skiing expertise.¹⁰ Both had similar motivations. In line with the gold-rush analogy, they were in search of the best snow depths and snow runs. In this way they were both rushing for the "white" gold and shared a vision in which there was not personal financial gain, only a passion for the snow.

Skiing has been categorized as one of the *serious leisure* activities¹¹ conducted as an amateur pursuit very different from *casual leisure*, which is to be taken un-seriously during free-time. Skiing indeed requires significant personal effort and commitment, training, perseverance and not in the least pleasure in conquering adversity in mountain terrains. Arguably, the pursuit of *pleasure* as distinct from *serious leisure* is one of the motivations that inspired Thredbo.

A photograph taken by Geoffrey Hughes, one of the people involved with the early Kosciuszko Chairlift and Thredbo Hotel Syndicate, witnessed that moment in 1955 when Tony Sponar and Charles Anton seemed to agree on the choice of the most suitable site, the Thredbo Valley.¹² Large format copies of this photograph were later printed in 2007 and distributed around Thredbo village to mark the 50th anniversary of the starting of Thredbo.

Influenced by the Austrian ski resort St. Anton where Tony Sponar worked as ski instructor in the period of 1941 to 1948, the search for the most suitable site was finally found.¹³ Early sketches show a plan for Thredbo with a layout similar to the Austrian village. Both were planned along a main road, a stream and a valley. A 1957 annotated sketch plan for Thredbo shows the lots and buildings already allocated, the existing and proposed roads and parking areas, the old and new hotel site, pedestrian paths, an existing and proposed chair lift within the Alpine way on the south side of the Thredbo River facing the Kosciuszko mountain. Unlike Thredbo, the European ski resorts started after the village was already established, as in the European Alps with Cortina d'Ampezzo, San Martino di Castrozza and Val Gardena among others, or in North-America like Aspen, Colorado. In Thredbo the ski infrastructure and the early tow rope and chair lifts were constructed at the same time as the Hotel, first lodges and ski clubs.

Interestingly, the historian Andrew Denning introduced the term white gold in *Skiing into Modernity: A Cultural and Environmental History*, with a chapter titled 'The Pursuit of White Gold.'¹⁴ Many people assisted in the pursuit of white gold in Thredbo with their passion, skills and expertise. Along with Sponar and Anton, there were the architect and planner Eric Nicholls (1902-1966), former partner of Walter Burley Griffin and Marion Mahony Griffin and the solicitor Geoffrey Hughes,¹⁵ a keen skier and designer of the sled-mounted mobile tow engine.



FIGURE 1 Kosciuszko Thredbo Limited, Starting Thredbo Advertisement in local newspaper *Alpine Venture*, 1958. Image: courtesy of Thredbo Ski Museum and Thredbo Historical Society.

In May 1955 the Kosciuszko Chairlift and Thredbo Hotel Syndicate was established and only two years later this enthusiastic group of people allied by the same passion for skiing, was granted a lease by the New South Wales Minister for Lands, to become the original directors of the Kosciuszko Thredbo Limited with their Chairman, a businessman Andrew Thyne Reid.¹⁶

This first lease gave rights to the group to sub-divide and develop 67 acres (28 hectares) of land in the Thredbo Valley for the village, and rights over 4570 surrounding acres (1850 hectares) for the ski runs, skilifts and chairlifts.¹⁷ The lease was granted and available for 99 years only if they could satisfy the agreement of building a one mile chairlift and a hotel for at least 80 beds in five years. The group thus realized that they needed the collaboration of a stronger financial institution to maintain the 99-year lease agreement from the Kosciuszko State Park Trust.¹⁸



FIGURE 2 Thredbo First Subdivision, 1958. (Courtesy of Thredbo Ski Museum and Thredbo Historical Society).

A few years later, the vision of Sponar and Anton vision presented another opportunity for the developer Dick Düsseldorf to work in the Snowy Mountains. In 1961 he acquired the 99-year lease with its financial company Lend Lease, to initially build a chairlift and a 100 bed hotel. From 1961 to 1987, Düsseldorf developed Thredbo Village. His vision was for a very different planning and architectural scheme to that of the working villages designed for the Snowy Mountains Scheme, a very different scheme from the 1870s initial skiing infrastructure located near the town of Kiandra.

Düsseldorf's involvement in 1961 with the Thredbo adventure is probably linked to the relation he had already established with Eric Nicholls, the architect who designed the 1955 Caltex House for Lend Lease, the first all-concrete high rise building.¹⁹ Düsseldorf's contribution to Thredbo as a ski resort, included the chair lift and the Alpine Hotel as part of the early lease agreement, the masterplan for Thredbo's future development and the Lend Lease company lodge, which was designed in 1962 by Harry Seidler and awarded the 1965 Wilkinson Award.²⁰ The intention for the development of Thredbo was outlined in the Lend Lease Annual Report of 1961/1962.

The story of the 1964 Thredbo Master Plan is a result of many drafts sketches and visionary ideas from different people including the initial Syndicate and later from the Thredbo resident and engineer Albert Van Der Lee, who arrived in Australia from the Netherlands in 1960 to work on the Opera House. That was the kind of energetic creativity and architectural design production that enthused the group from mostly European backgrounds, to proceed in their visionary plans for Thredbo.

Thredbo Village

Thredbo holds a unique place in Australian history. There are a few reasons for this claim. Its origins and development as a tourist resort rests on its unique lease agreement between a private corporation and the Kosciuszko State Park Trust, as a government agency. Thredbo is a company town privately owned for a period of sixty years by three main companies. The original lease granted to the syndicate in 1957 was taken up in 1961 by Düsseldorf, who sold it in 1987 to the current group, Amalgamated Holdings Limited. Arguably, Thredbo is the only town in NSW, if not Australia, where a private company acts as the intermediary between the owners of the residences and the government. The company town owns the lease for the land and pays a rent to the government to have full control over the decision making in the village, its development and building construction, including the amount of rent the company asks from the individual building owners, based on a certain amount for each physical bed existing inside the premises.



FIGURE 3 Jeff Carter, “Village in the Ski, article compares tourism to a potential goldmine, 1960. (Courtesy of Thredbo Ski Museum and Thredbo Historical Society).

Given this rental agreement, the company town is more keen to act as a real estate development agency, where it is more lucrative to realize more apartments than it is to invest in upgrading the mountain infrastructure. This leads us to consider the other unique aspect of Thredbo. Düsseldorf had a bigger vision that included more chairlifts to offer snow runs to all types from beginners to advanced skiers. Certainly, it must be that the quality of the ski infrastructure was greatly improved since in August 1989 the renowned World Ski Championship was held in Thredbo. But according to the locals, that was the last time the ski infrastructure was upgraded.

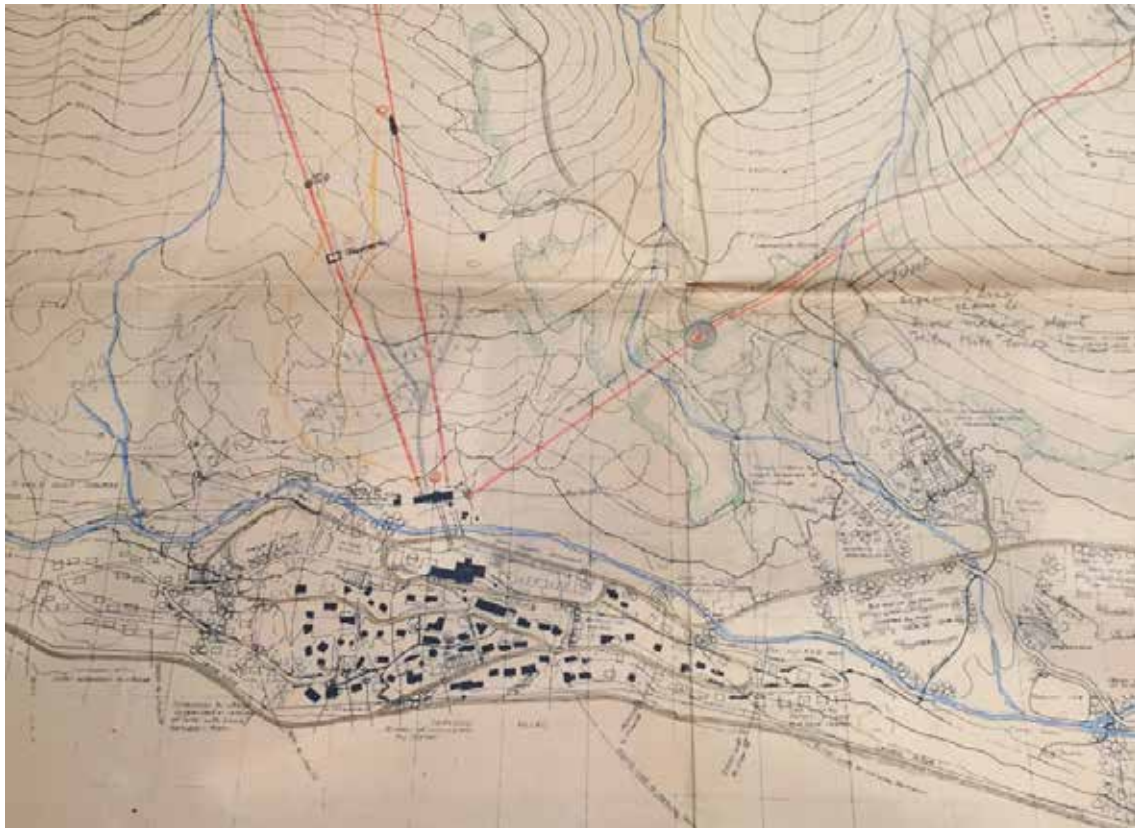


FIGURE 4 Thredbo MasterPlan, October 1964. (Courtesy of Thredbo Ski Museum and Thredbo Historical Society).

When in 1961 Dick Düsseldorf and Lend Lease finally bought and financed Thredbo, approximately 60 houses had already been built in the village, apparently without a proper Master plan. The combined effect of European influence, the respect for the natural terrain and the adoption of a simple urban design, architecture and rules for construction, would find an enduring expression in the compact village development. The chalets, lodges and individual houses were built close to each other as the steep sloping terrain called for collaborative construction efforts. The result is a European sensitivity, one that you can find in a small mountain village in the European continental Alps.

The masterplan approved by the Kosciuszko State Park Trust in 1964 contributed to the development of the village with a clear framework for infrastructure, confirming and consolidating the buildings that had already been realised in the previous years, thus further establishing the boundaries to match the layout of the lots on the maps for subdivision and giving directions for future developments.²¹ The topography of the terrain and the location of the lodges built in the period between 1957-1963, set the choices for the inevitable road system including a timber pedestrian bridge over the Thredbo River connecting the Alpine Hotel to the Valley terminal and the chair lift to Mount Kosciusko. To satisfy the lease Düsseldorf agreed to provide water, power and sewage, replacing the original simple systems of septic tanks and electrical generators.

Thredbo was the initial vision of the European pioneers and Snowy mountains' heroes such as Sponar and Anton from the Czech and Austrian countries respectively, however, it was built by three Dutch men: the highly skilled carpenter and early mountain manager Cees Koeman; the engineer Albert Van der Lee who became the Thredbo manager in 1962 and Dick Düsseldorf the 'benevolent financial dictator'.²² Düsseldorf's big vision was projected further into the

future. It included a sophisticated snow infrastructure with more ski runs, chairlifts, escalators and a surface lift that was going to connect Thredbo Village with Merritt's Lodge on the top of the mountain.

From the vantage point of the chair lift station up on the Kosciuszko terrace, Thredbo appears compact, a linear village built between the two north-south edges of the Alpine road and the Kosciuszko mountain with nowhere to go: a whole defined entity, a built environment consolidated in a very short time just over half of a century. From high above, the village seems a continuous homogenous mat punctuated by roof-lines. Closer field study observations reveal a different reading of Thredbo Village. The dense fabric has a number of individual houses which stand for their particular design characteristics in dialogue with the rest of the village through linear paths, pedestrian timber paths, paved terraces, walkways, steps and cross paths which transform the village into a dynamic figure-ground with the solid volumes of buildings in dialogue with each other throughout its topography and with the noticeable new constructions still developing on the eastern and western parts of the village.

Alpine Architecture

Thredbo is a unique place, also for its architecture. Keeping the gold-rush analogy, Thredbo has within its fabric a series of architectural gems mostly designed by European architects or Australian architects with European backgrounds. These gems represent the late 1950s to early 1960s modernist aspiration for a clear planning configuration and design principles, an appreciation for the site and its context, an interior open plan and spatial arrangements supported by solid structural decisions and construction material choices.

Probably the first architectural gem is Peter Muller's 1958 Wombiana²³ designed for Garry Richardson. This is an example of architecture where the structure of the house itself seems to be emerging from the land with its roof-line following the natural slope of the site. A discrete and recessed entrance marked by a low stone wall, leaves the architecture of the open terrace and living space to fully express its character through construction details in timber and stone.



FIGURE 5 Peter Muller, Wombiana House (1958) Emerging from the land, the roof line of the ski lodge follows the natural slope of the site and the line of the mountain. (Photo by author).

LEND LEASE LODGE, THREDBO



FIGURE 6 Harry Seidler, Lend Lease Ski Lodge (1962) renamed by current owners Seidler Lodge. (Courtesy of Thredbo Ski Museum and Thredbo Historical Society).

On the opposite side of Muller's house, in Diggings Terrace, Harry Seidler's 1962 lodge was designed for Düsseldorf as the Lend Lease Company lodge. It combines Seidler's modernist principles with the Lend Lease company requirements. A typical Seidler's architectural design element of the ramp, used in his early Rose Seidler House (1948-50) at Turramurra in Sydney, connects the visitor from the street directly to the living/dining space of the top floor of the six half-level, timber construction. Two double bedrooms, two four-bunk rooms, bathrooms and laundry facilities are all linked by a central series of steps. The lodge is supported by five equally spaced, 3 metres apart, vertical pre-fabricated timber trusses, which allowed the whole lodge to be built in the very short time of four months by the Civic & Civil construction company.²⁴ The strength of Seidler's lodge lies not simply in its pre-fabricated timber trusses, arguably derived by European Alpine examples, but also in its sophisticated expression of the modernist spirit.

Seidler's lodge and Muller's Wombiana house stand opposite each other on the same street - almost a testimony of the two principal streams of thought occurring in the post-war domestic architecture of Sydney. In Jennifer Taylor words: "The Rationality and machine ethic of the Bauhaus was represented by the work of Harry Seidler, and Frank Lloyd Wright's organic theories by the architecture of Peter Muller."²⁵

It is generally accepted that Peter Muller along with Bruce Rickard and Neville Gruzman, who it is said belong to the Sydney School, exhibited in their domestic architecture, "Wrightian overtones." This point has been discussed by Milo Dunphy in the 1960s, Jennifer Taylor and David Saunders in the 1970s and more recently by Phillip Goad (2006) et al. Jennifer Taylor's article 'Looking at the Sydney School' traces the origins of this approach, claiming that it had largely grown from the influence of Frank Lloyd Wright and the traditional Japanese house, as seen in the work of Peter Muller and Bruce Rickard.²⁶ While in the same period the rationalist influence of the Bauhaus imported by Harry Seidler, was visible in the open plans of the modernist houses of Sydney Ancher and Arthur Baldwinson. Interesting similarities can be drawn here between Thredbo and the north American snow town of Aspen, Colorado for their similar planning configurations influenced by St. Anton in Austria and by their unique acceptance of post-war competing modernist design approaches.²⁷

Muller and Seidler in Thredbo represent the Australian counterpart of the North American, post-war architects Frederick "Fritz" Benedict as Taliesin alumni and Herbert Bayer as a Bauhaus master.²⁸ All these architects employed engineering skills in their exploration of structural techniques to express dramatic architectural forms in the Australian and North American Alps²⁹.

Thredbo has been fortunate in attracting a number of renowned architects who contributed to Thredbo's built environment. Another gem designed in the same year as Wombiana is the 1958 Sastrugi Lodge, an Austrian word meaning *sand-dune like snow formation*, designed by Eric Nicholls with Austrian architect Otto Ernegg for Thine Reid, the chairman and financier of the early Thredbo Limited. The 2001 adaptation by Dawson-Brown still shows the original curved plan and the solid stone base.

Other lodges and private houses were built, such as Yuncken Freeman Brothers Griffith & Simpson's Currawong Round House project (1959) designed for the Wettenhall brothers/family; Peter Storey's (1962-1963) Thredbo Alpine Hotel (designed as part of the lease agreement) and his Valley Terminal Chalet, and David Epstein's (1976) Munjarra Lodge.³⁰

Arguably, based on the pragmatic characteristics of the Norwegian pre-fabricated huts purchased from the Snowy Mountain Authority and on the architectural vocabulary of the architects and skilled workmen involved in the design of the early lodges, the Hungarian Béla Racsó, the Austrian Otto Ernegg, the Dutch Cees Koeman and the Australian Eric Nicholls among others, the Kosciuszko National Park Trust prescribed a series of design guidelines.

By early as 1960, the Trust required 15% of the external walls of the typical concrete block basement to be faced by local stone to blend in with the land. The Trust also required the two stories above to be a timber construction of structural or cladding timber elements made in alpine ash hardwood painted in a mission brown and oiled with acorn oil for protection. In the 1970s, these early design and construction guidelines changed and the structural alpine ash was replaced by the less expensive Oregon pine imported from California or Canada and a cheaper local softwood such as Pacific Maple was used for window and door frames.³¹ More recent fire regulations have exchanged some of the construction material with corrugated metal and Colourbond cladding, replacing the timber veneer and questioning the role of the historical guideline in the future expansion of the place.

Conclusion

This paper examined how from the heroic spirit of the Snowy Scheme a group of European migrants skilled in snow activities began a visionary project for Thredbo Village. Supported by the postwar immigration program, a number of Czech, Dutch, Hungarian, German, Italian and Yugoslavian migrants were drawn in the 1950s and '60s to Thredbo for professional recognition and economic reasons. All shared a collective spirit of adventure, passion for the snow and an enormous resilience and the optimism to achieve economic growth in a remote area. Arguably, this resilience was what the emerging modern nation needed at that time. However, the highly scientific and engineering level achieved by the Snowy Scheme cannot be compared with the modest situation of the current Thredbo infrastructure. In comparison, the modest quality of the pre-fabricated workers' cottages for the Snowy Scheme stand clearly on a very different level to the architectural gems found within the Village.

In conclusion, looking into the future of Thredbo requires a historical framework, one that holds together the initial gold rush, the heroic spirit of the Snowy Mountains Hydro-electric Scheme and the European dream for the "white" gold. It is a framework created by complex layers of dedicated people initially driven by the desire for the fulfilment of a dream rather than personal financial gain. One can only imagine or hope that the same spirit would continue in the future with a higher level of commitment from the company town, the Amalgamated Holdings Limited that in 1987 took over Düsseldorf's 99 years lease. A lease that will end in 2057. Thredbo should offer us some lessons because currently, it needs urgent attention. Can Thredbo still learn from the European Alpine history as mentioned in this statement below or should the village focus now on more cultural activities claiming its own history and heritage?

The historical significance of Alpine skiing lay at the intersection of multiple social and political currents: the economic development of the Alps, the changing European consumption practices that created a leisure society, the creation of a modern mass culture, and shifted attitudes toward nature.³²

If taken seriously, there would be opportunities for the establishment of unique problem-solving approaches to halt the loss of winter tourism: 50% of the clientele is attracted by better snow infrastructures overseas in Japan and New Zealand as well as in Europe and North America. There is a place for upgrading and realizing an integrated snow-summer infrastructure, for maintaining the existing architectural gems introducing more cultural and heritage activities and for designing, constructing and financing new architectures and a new engineering infrastructure, which will reconsider Düsseldorf's big vision and address not only the temporary visitors and stakeholders but also the residents, the 500 people who still believe in their white gold dream: working and living in Thredbo is a magical way of living.

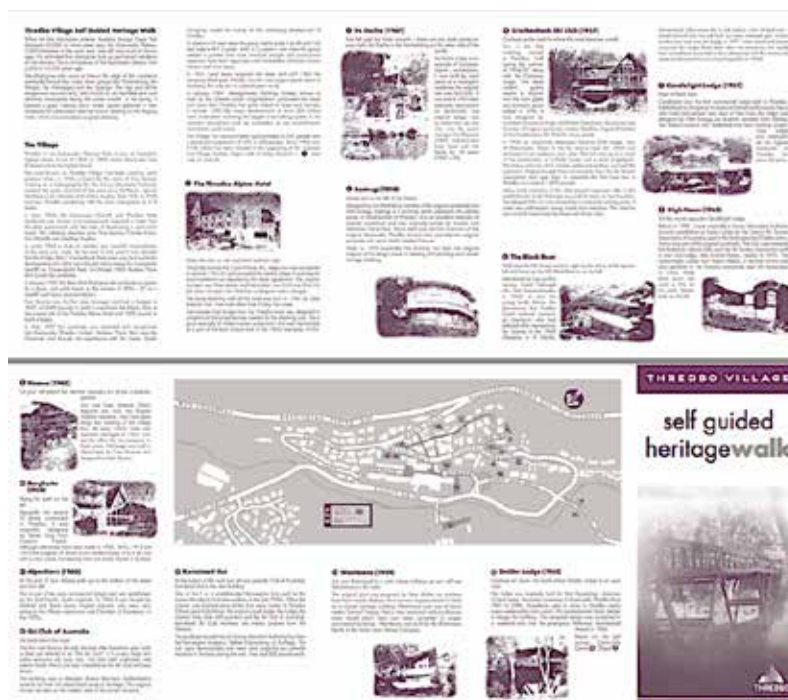


FIGURE 7 Thredbo Heritage Walk, Thredbo Village. Image: courtesy of Thredbo Ski Museum and Thredbo Historical Society.

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Endnotes

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- 8 Australian Academy of Technological Sciences and Engineering, Proceedings of the 1999 Symposium, *The Spirit of the Snowy Fifty Years On* (Australia: 1999). In particular, the following papers from Professor Michael Gore's "Science communication - a present and future imperative," Engineer Doug Price's "The Snowy Mountain Scheme – the history and the Snowy today" (from DG & EF Price Consulting Services working as an engineer in the Snowy Scheme from 1950 until his retirement in 1988 from SMEC).
- 9 Peter Keys, Tony Moore, "Case Study: Development in the Snowy," *Architecture in Australia* (March 1960).
- 10 Tony Sponar, *Snow in Australia – that's news to me* (Canberra: TableTop, 1995): 24.
- 11 Robert Stebbins, *Serious Leisure: A Perspective for Our Time*, (New Brunswick/London: Transaction Publishers 2007): 6.
- 12 Jim Darby, *Thredbo 50: 1957-2007* (Sydney: tSm Publisher 2006): 10-11.
- 13 As a note of interest, the Austrian Village of St. Anton was the location for the 1931 "Der Weisse Rausch" starring Leni Riefensahl, and the 1969 film "Downhill Racer" with Robert Redford and Gene Hackman.
- 14 Andrew Denning, *Skiing into Modernity: A Cultural and Environmental History*, (Oakland: University of California Press, 2015): 153.
- 15 As a note of interest, Hughes' brothers are Tom Hughes AO, Attorney General of Australia in the Gorton government 1969-1971 and art critic Robert Hughes. Their sister architect Constance Crisp designed in 1957 with architect Robert Maclurcan and builder W. Beagley from Cooma the first Lodge called Crackenback after the first name of the Thredbo river. Crisp designed also the first private lodge at Thredbo and represented NSW in interstate ski competitions.
- 16 Geoffrey Hughes, *Starting Thredbo*, (Walarah NSW: Hughes Publisher, 2008): 15.
- 17 Darby, *Thredbo 50*, 15.
- 18 The Kosciuszko State Park Trust was established in 1944. (1) The Act established the Minister to be a member of the Trust and the chairman. The remaining members of the Trust were appointed by the Governor. (2) Of the members appointed (a) one was to be appointed on the nomination of the Minister and was to be an officer of the Department of Lands; (b) one was to be appointed on the nomination of the Premier and was to be an officer of the Public Service; (c) one was to be appointed on the nomination of the Minister to be the representative of the Forestry Commission of New South Wales; (d) one was to be appointed on the nomination of the Minister as a representative of the Director of the Soil Conservation Service; (e) one was to be appointed on the nomination of the Minister to be a representative of the Government Tourist Bureau and (f) two were to be appointed on the nomination of the Minister. (3) The Kosciuszko State Park (Amendment) Act, 1952 (Act No.57, 1952) provided that the Minister could (a) grant leases of land within the Kosciuszko State Park for the purpose of (i) the erection thereon of accommodation hotels or accommodation houses; (ii) the provision thereon of facilities and amenities for tourists and visitors; (b) grant leases of land within the Kosciuszko State Park on which accommodation hotels or accommodation houses have been erected or facilities and amenities for tourists and visitors have been provided.
- 19 Mary Murphy, "Leisure in the Snow," *Challenges of Change* (Lend Lease Corporation Limited, 1984): 102-106.
- 20 Lindie Clark, *Finding a Common Interest. The Story of Dick Dusseldorp and Lend Lease* (Port Melbourne, Victoria: Cambridge University Press, 2002): 198.
- 21 Darby, *Thredbo 50*, 30.

- 22 Personal conversation with Cees Koeman, Thredbo, Kasees Lodge, March 28, 2016.
- 23 Jacqueline C Urford, *Peter Muller: The Complete Work* (Cammeray, NSW: Walsh Bay Press: 2008)
- 24 Kenneth Frampton, Philip Drew, *Harry Seidler, Four Decades of Architecture*, (London: Thames and Hudson, 1992), 56.
- 25 Jennifer Taylor, *Australian Architecture Since 1960*, (Red Hill, ACT: RAlA National Education Division, 1990), 14.
- 26 Milo Dunphy, "The Growth of an Australian Architecture," in R.J. Maguire ed., *Hemisphere, Asian-Australian Viewpoints and Ideas*, (Melbourne Canberra Sydney: F.W Cheshire, 1964): 71; Jennifer Taylor, *An Australian Identity: Houses for Sydney 1953-1963*, (Sydney: University of Sydney, Department of Architecture, 1972); Philip Goad with Ann Stephen, Andrew McNamara eds., *Modernism & Australia, Documents on Art, Design and Architecture 1917-1967*, (Melbourne Megunyah Press, 2006), 891.; Jennifer Taylor, "Looking at the Sydney School," *Transition*, November 1979: 4.
- 27 Margaret Supplee Smith, *Aspen's Twentieth-century Architecture: Modernism 1945-1975*. <http://www.aspenpitkin.com/portals/0/docs/city/comdev/hpc/modernismfinalsmall.pdf> (Accessed May 30, 2016).
- 28 Supplee Smith, *Aspen's Twentieth-century Architecture: Modernism 1945-1975*, 11.
- 29 Supplee Smith, *Aspen's Twentieth-century Architecture: Modernism 1945-1975*, 13.
- 30 My sincere thanks to Tony Lee, Director Programming Robin Boyd Foundation, for investigating and clarifying the architect for the Currawong house incorrectly attributed to Robin Boyd on the Thredbo Ski Museum and Thredbo Historical Society Newsletter (April 2016).
- 31 Albert Van der Lee, "A Brief History of Thredbo Alpine Architecture," *Friends of Thredbo Newsletter*, Issue #61 (April 2016): 8.
- 32 Denning, *Skiing into Modernity: A Cultural and Environmental History*, 16.