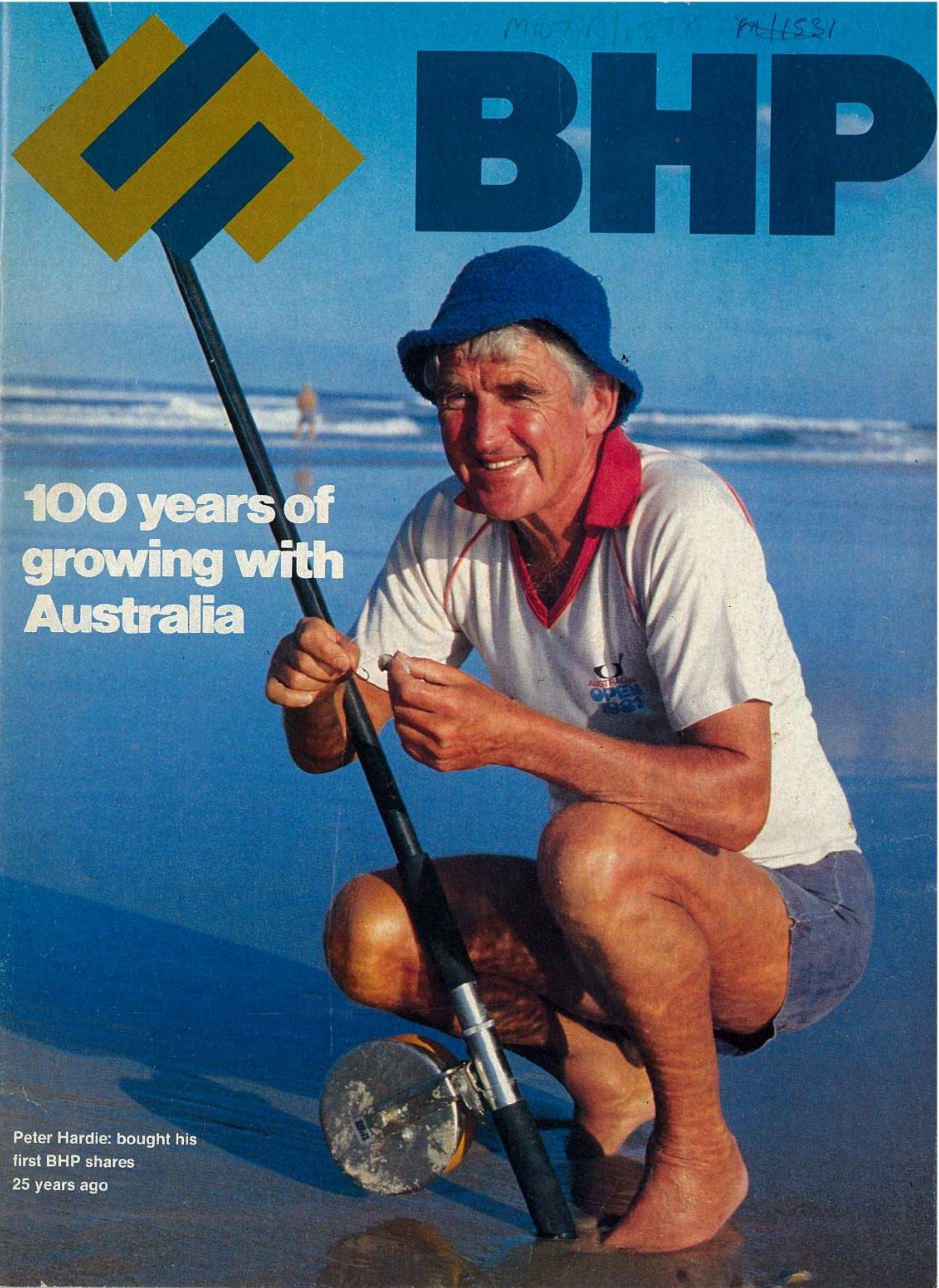

BHP

100 years of growing with Australia

Peter Hardie: bought his first BHP shares 25 years ago

PM/1531


We breathe life into industry.
Over the last fifty years, CIG has become the largest supplier of oxygen and welding equipment to industry within Australia.
We keep the wheels of industry turning by supplying it with only the highest quality product.
Something we intend to do for a long time to come.
1935
50
1985
CIG
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Selling BHP shares in Argent Street, Broken Hill, in the 1880s
THESE DAYS, INVESTING IN BHP IS CONDUCTED WITH A LITTLE MORE DECORUM.
One hundred years ago, the House of Were was in its forty fifth year of successful trading.
Two years later, shares in the young Broken Hill Proprietary Company were being traded by Were's on a 'hysterical' Melbourne Stock Exchange.
Records show that over the Christmas period in 1887, J.B.Were & Son staff worked frantically, often far into the night, the fever of speculation having affected every stratum of society.
In a single day, 20th January, 1888, operations exceeded £2,000,000 on 'Change, mostly in BHP shares.
Over the last 100 years, BHP and the House of Were have maintained a close association.
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But even though the circumstances have changed, the excitement of trading, and the satisfaction of wise investment decisions will always suffuse the spirit of the House of Were.
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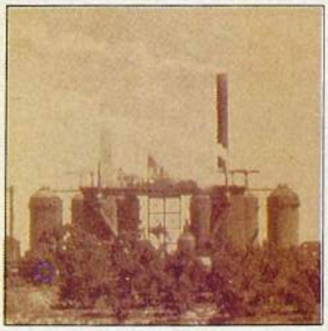


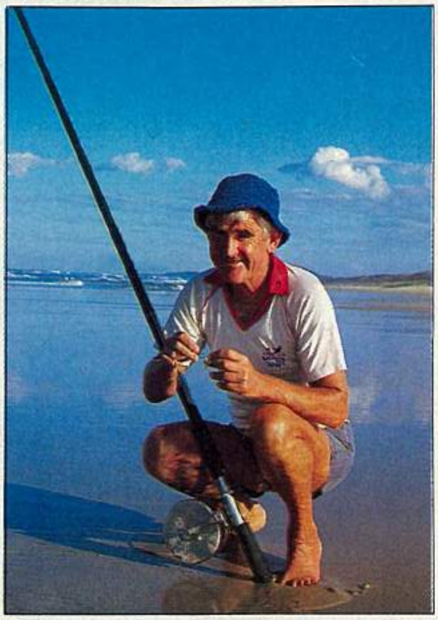
Lithgow blast furnace

Mt Newman iron ore works

Jabiru oil rig

Port Kembla

BHP



Peter Hardie is one of about 170,000 shareholders who own the Big Australian. In a special tribute to mark 100 years of achievement, Broken Hill Proprietary Company Limited and John Fairfax and Sons have combined to produce this centenary publication. The huge print run of 1.5 million copies is being inserted into Australia's leading newspapers and will be made available to every high school in Australia.

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I would like to thank the editors for this opportunity to contribute a few words of introduction to this review of BHP's first century.

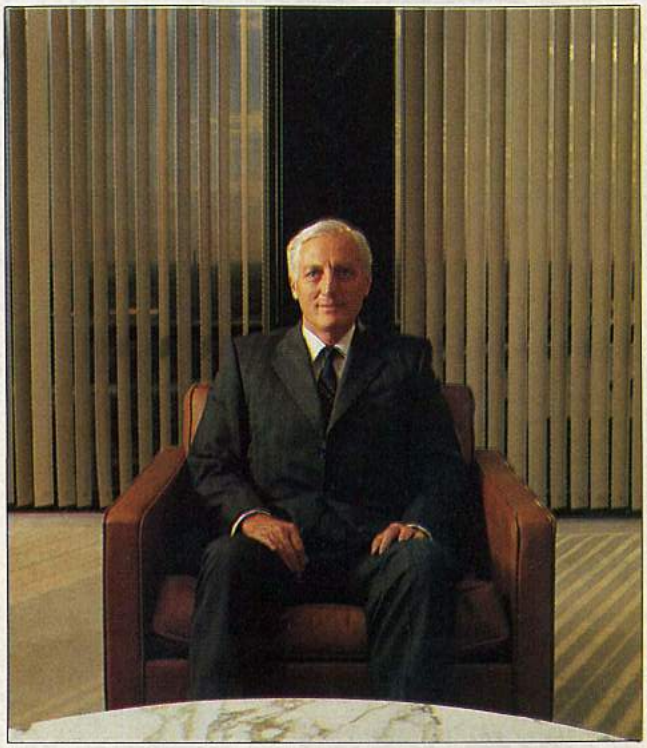
There is much to reflect upon in the past hundred years of unsurpassed human achievement in Australia and throughout the industrialised world. BHP and the people who work for it are proud of its contributions, large and small, to past and present generations of Australians.

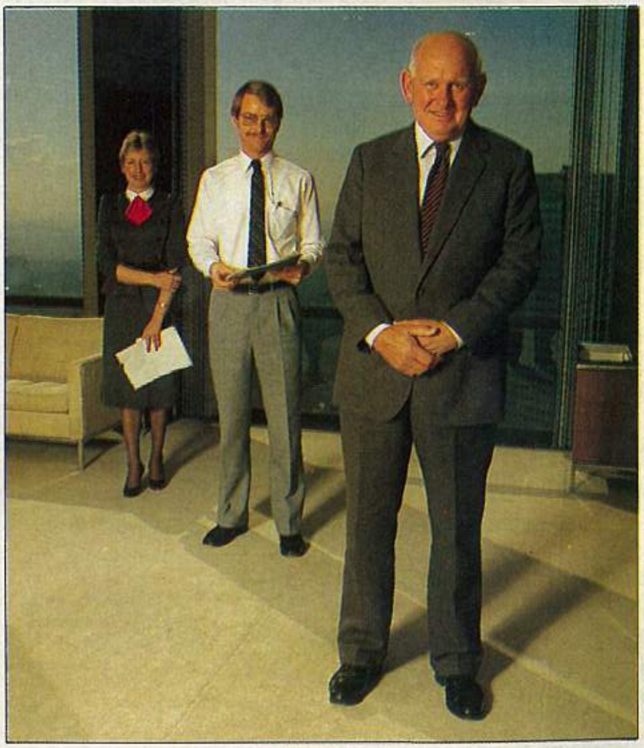
Much is owed to those who have gone before and built our company, from small beginnings in a primitive and testing environment.

Today BHP has many millions of stakeholders, people who benefit from our enterprises. These stakeholders are direct and indirect shareholders (the latter through the investments of superannuation and life assurance funds), employees, customers and the various communities where we have operations. Although we have not had prior sight of these pages, I am sure they will generate widespread interest not solely for what they contain but because of the depth of our continuing commitment to Australia.

Our second century will be, we hope and believe, another period of economic progress for Australians and the world.

Brian Loton
Managing Director and
Chief Executive Officer





Top right: Brian Loton, chief executive
Right: Sir James Balderstone, chairman of directors, his personal assistant Ivan Arnold, and secretary Shirley Baillie


Ansett seats
are wonderfully
comfortable
for all
Australians,
however big
they are.
Happy Birthday.

Securing the beach-head for a new golden era

1985 will be the springboard that launches BHP into its fourth golden era, reports the managing editor of BRW Publications, Robert GOTTLIEBSEN. He explains how the acquisition of Utah establishes an important beach-head for the company's future

The board and shareholders of BHP in the year 2000 will look back on the centenary year, 1985, and rank it as the fourth key date in the company's history.

The other three are 1885, when the company was founded to develop the Broken Hill ore; 1911, when Guillaume Delprat convinced directors that they should establish a steel industry at Newcastle; and 1960, when Ian McLennan went looking for oil in Bass Strait.

In 1985 the board of BHP decided that instead of being "the Big Australian," BHP would look for much of its expansion overseas. No other board in BHP's history has ever made such a far-reaching decision. It means that a very big slice of the cashflow from BHP's oil, steel and minerals operations will be invested overseas to widen the horizons of the group.

This policy overturns the habits of almost three quarters of BHP's 100-year history. However, it is fascinating to reflect that when Delprat selected Newcastle as the site for BHP's steelworks he was influenced, in part, by the ability of the port to be used in the export trade.

BHP has always been an exporter of steel, but has usually looked to supply the home market first. Exports have been a handy by-product when local demand was depressed. The 1985 decision to change the company's direction was accompanied by a massive alteration in management structure which included a new role for the board, managing director and divisional heads. Although the changes are designed to achieve many objectives, including faster decision making, the internationalisation of BHP is an integral part of the moves.

There is no doubt that the 1982-83 slump, which saw BHP incur a loss in its steelworks, jolted the company and set in train a very different process of thinking. But it was the takeover of Utah which gave BHP the opportunity to gain a beachhead overseas.

The-then BHP chairman, Sir James McNeill, described the Utah purchase as "buying straw hats in winter." Later events have shown that it was one of the most brilliant strokes ever executed by the company.

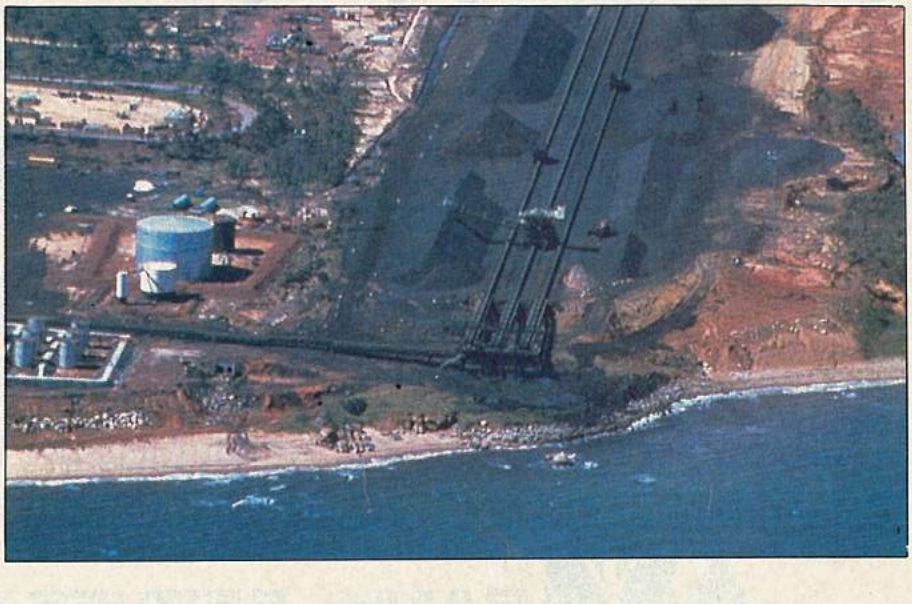
With the benefit of hindsight, BHP probably would have liked to retain more than the 35 percent of Utah coal that eventuated. But BHP wanted to limit its exposure to coal (which was already high) and to the Australian continent, where almost all its assets were placed.

There were two other prized parts of the Utah deal which BHP retained. The first was the network of Utah mines around the world and the second was the Utah board, based in San Francisco.

It would have been very easy to have broken up the San Francisco board. Its power and influence had been reduced during the time it was owned by General Electric, which was not excited about heavy investment in minerals. Normally, when a large company takes over another group it puts its own nominees in charge, and those who were there before take a lesser role or leave.

But one of the great attractions of

Above: Sir James McNeill, who presided over the Utah purchase
Top and right: An ore carrier loading at Groote Eylandt, one of the major parts of BHP's mineral operations



Utah to BHP was its management and board. And the Australian company went out of its way to make it clear that it wanted Utah executives to spearhead the internationalisation. First it was necessary to settle down the Utah operation and reorganise BHP management to assist in the process.

At present the minerals division is in two parts: the Australian operation and the Utah operation, both in Australia and overseas. The plan is to merge these two areas over the next two years. Almost certainly, BHP's mineral operations, including those in Mount Newman and Groote Eylandt, will come under the wing of the Utah board and management.

Most of the earnings of BHP's mineral operation are in US dollars and the company has modest borrowings, putting it in a wonderful position to either develop new mines (such as the Escondida copper deposit in Chile) or to acquire new ventures, perhaps from those who need to sell (such as the ERG petroleum operations). Both ERG and Escondida are controlled by the Utah board and management.

It would not be unreasonable to expect that out of a future BHP cashflow of, say $1.2 billion, some $500 million might be used in overseas expansion, if the right opportunities come up. After a few years BHP's overseas operations would rank in size with Australia-based activities.

But the internationalisation of BHP is taking place not just in minerals. One of the problems of the company is that Bass Strait will start to decline at the end of the decade and it is essential for BHP's petroleum operations to replace the oil.

The North West Shelf will begin exporting LPG to Japan around the end of the decade and BHP has been anxious to increase its stake.

The head of BHP's petroleum operations, Russ Fynmore, has a very flexible budget which enables him to join in with oil majors in exploration consortiums around the world. It was this flexibility which enabled BHP to make a quick decision to buy half of the area which contained the Jabiru oilfield.

Although Jabiru has not lived up to its early hopes it is clear that it is a producing area and is likely to be a forerunner of similar discoveries in the region.

In Bass Strait most of the oil is found at the top of the tertiary aged Latrobe group. The company is now looking for oil in what are known as intra-Latrobe fields where there has not been as much drilling and where production is more difficult.

Provided everything goes to plan, some $1.8 billion will be spent on Bass Strait development and exploration over the next five years. BHP will spend much more than that to make sure that its total oil reserves don't decline.

Mt Newman: predicted to be taken under the wing of the Utah board

Assisting in the overseas thrust of that process will be the management of the ERG group. With oil prices now very soft, and many oil groups fully extended, BHP is in a wonderful position to secure its long-term future in this area.

During the 1950s and 1960s BHP was the cheapest steel producer in the world. But Australian labor costs, the trouble of shipping ore around the coast and BHP's lack of a big base market that would justify heavy investment in the most modern plant, pulled back that ranking.

The steel agreement (which was based on increasing the productivity of BHP workers and providing additional capital expenditure) did its job and enabled the company to recover some of its ground.

It is significant that in the 1985 reorganisation of management, BHP steel is also dubbed with the title "international." In the short term, that is unlikely to greatly influence the operations of the company. But for the future it is clear that BHP is looking to internationalise its steel operations in much the same way as it is internationalising its other group activities.

For example, if the most co-effective way of achieving a particular goal is to establish a plant in, say South East Asia, then BHP will consider putting the plant there rather than in one of its Australian steel centres. Significantly, the area of BHP's steel operation which is most affected by imports is John Lysaght, which has been consolidated into the BHP international group.

Why is BHP making such enormous changes?

Just as the company saw and took advantage of the environment in which it operated during 1911 and in the 1960s, so BHP is leading Australian companies in reacting to a new development in the 1980s and 1990s.

In the past shareholders had limited influence on the way large Australian and international companies conducted their business. But around the world, big companies are finding that unless they perform for the people who hold their scrip they run the risk of raiders taking advantage of the dissatisfaction of institutional shareholders.

BHP is no exception. Indeed, the strong position of the company and the potential to separate its component parts makes it more vulnerable than most to a raider.

For BHP, it has been Robert Holmes a Court who has most clearly demonstrated this new era of shareholder power. And the company has responded with a flexibility that must have surprised its detractors.

Part of the reason for the new shareholder power is that in years gone by company registers were dominated by individuals who did not trade their shares or by institutions which were little more than moneyboxes and virtually stagnant organisations.

Today, the fastest growing font of equity capital is from institutions whose source of funds depends on their performance. Accordingly, they require the companies in which they buy shares to perform also. Boards which do not understand that they are driven by the same motives as their major shareholders have either already been thrown out or will be.

The future BHP boards and managements will not only have this change to cope with but they also operate in a very different environment from their predecessors.

Now that the US has inflation under control, if Australia runs into a bad patch of inflation it will mean much harsher economic conditions. In the past, inflation has tended to paper over the mistakes of management and boards. Now, because of the need to contain inflation, it is not possible to have the same rates of growth that were enjoyed in the sunshine years.

Directors and managers are under pressure to make the right decisions. This is why BHP will now be able to examine proposals from around the world and pick the very best ones.

Although BHP is setting an example for the entire Australian corporate community, it faces some problems with groups of its overseas shareholders. Many overseas BHP shareholders — and the total percentage of BHP shares owned overseas exceeds 25 percent — bought the scrip as an Australian "counter", In other words, it represents a diversifying. With BHP increasingly extending overseas, the company ceases to be such a counter, and many of these institutions will look to other Australian companies or be dissatisfied.

BHP has to convince overseas shareholders that, rather than being an Australian "counter", it should be seen as a strong world resource company that happens to be based in Australia. There is evidence that it has achieved some success in this view.

As more companies follow the BHP pattern it must inevitably mean less long-term power for unions and governments in Australia. If they push their strengths too far, then Australian companies could increasingly switch their capital, resulting in higher unemployment in the areas covered by the delinquent governments or unions.

Another area in which BHP is leading in Australia is in the decentralisation of managements.

Throughout its history BHP has been led by a dominant person. There is no question that Delprat, Essington Lewis, Ian McLennan and even James McNeill were some of the most dominating personalities ever to emerge on the Australian corporate stage. Their personalities and management style played an enormous part in the development of BHP.

But the latest management reorganisation of BHP devolves responsibility much further down into the operating areas. For example, managing director Brian Loton will be accountable to the board for "overall performance, strategic planning, resource allocation and the generation of investment opportunities."

And the board of the company, while continuing its present responsibilities, "will concentrate more on strategic direction. It will also concern itself more with assessment of management, performance and with succession planning."

It is a rather unusual step for a board and its managing director to effectively reduce their power. It stamps Brian Loton as a very different leader from his predecessor.

This restructuring will take several years to really change the way BHP comes to its decisions because old habits die hard. But there is no doubt that the BHP of the 1990s will find that the heads of its three divisions — oil, steel and minerals — will have a great deal more power and influence over the day-to-day running of the company than they did in the 1970s and 1980s.

In many ways this is a recognition that BHP is too big a company for a managing director to assume day-to-day accountability. For example, if Brian Loton reports that his profit has increased 20 percent, it would gratify shareholders but might conceal substantial problems in certain areas.

By shifting downwards the responsibility it should be possible to evaluate management and make much more rational decisions about where to allocate capital.

BHP hopes that through this process — rather than by the dominant leader at the top system — it will significantly improve its performance in the years ahead and retain the loyalty of its shareholders.

There are few big companies in Australia which have undertaken such a critical examination of the role of their management and accepted that unless managers and directors perform, the shareholders will replace them with new people.

Just as it was BHP which was at the forefront of developments in Australia in so many of the decades of the last century, so the experiences of BHP as it runs into its second century will have an enormous impact on the way the private sector in Australia develops, on the attraction of ordinary shares to investors and on the long-term thinking of governments and unions. ■

BHP is looking to internationalise its steel operations


The men who made it all happen. BHP founders George McCulloch, left, and boundary rider Charles Rasp, right


Bullion stacks being loaded at Broken Hill in 1887

How a boundary rider founded an empire

Despite its huge size, BHP started like any other small company — on the dreams of its entrepreneurial founders. Derek Sawer traces an empire that began in the isolation of western NSW

BHP's story begins with a quiet balding man, something of a loner, scrambling around the black rocks atop a low hill just south of the Barrier Ranges in western New South Wales. The place abounded in wallabies. The hill formed a part of Mt Gipps station, where Charles Rasp was the boundary rider. It was 1883, a drought year. Rasp had migrated to Australia from Bismarck's Germany 14 years before and worked at several properties along the western rivers.

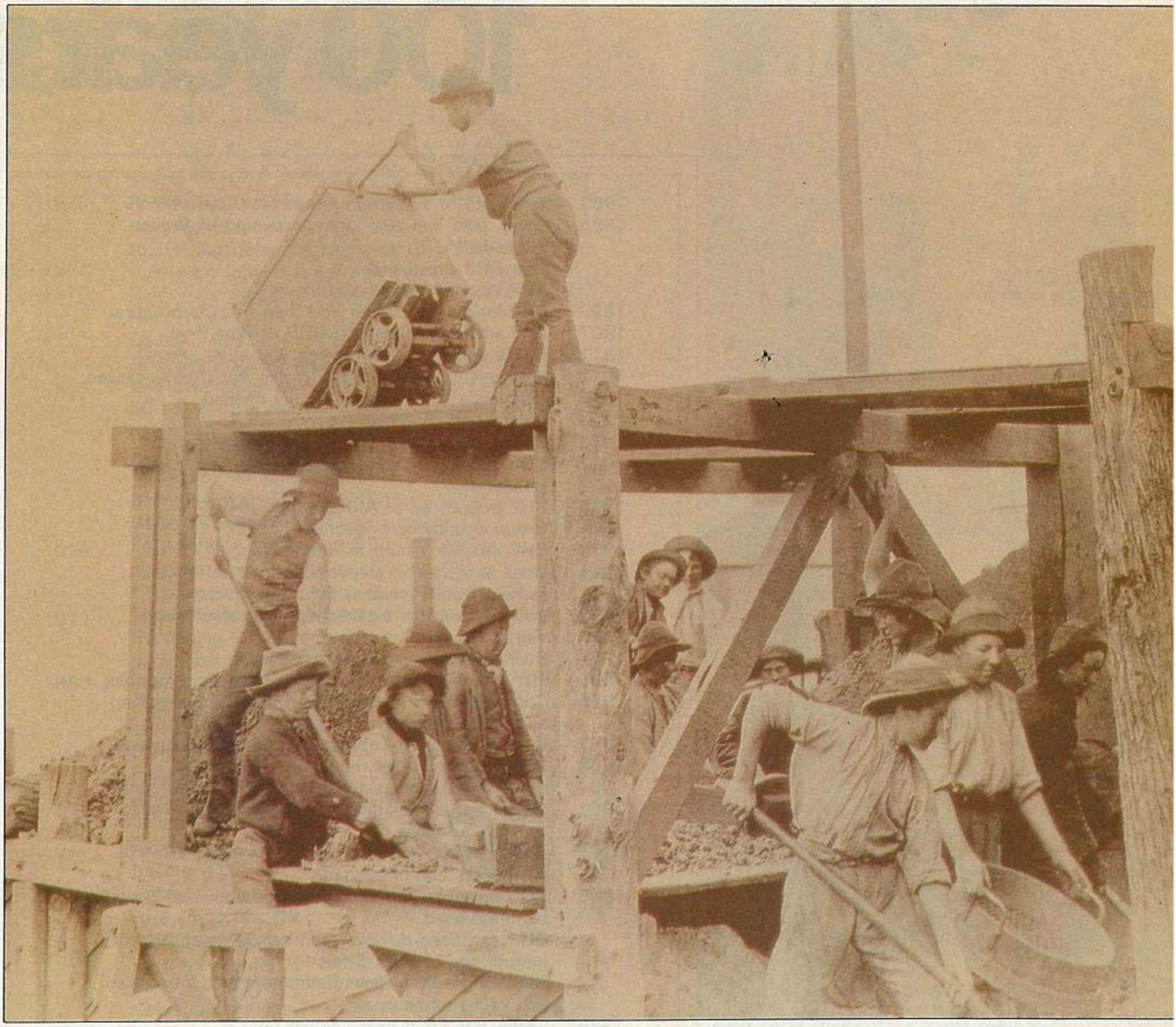
For 10 years or more prospectors had been finding silver-bearing ore in the ranges, but the word around the pubs at Silverton, the local centre, was that Mt Gipps had only a hill of mullock. Perhaps typically, Rasp was defying local opinion by fossicking around on the broken hill, helped by a prospectors' guide bought on a trip to Adelaide. He was also defying George McCulloch, the station manager, who wanted no diggers disturbing his sheep.

In September, Rasp decided he had discovered something. He thought it was oxide of tin, then found it was carbonate of lead. But it was enough for him to seek to peg a 40-acre stretch. McCulloch, told of this, proposed instead that all of the hill within the property, about 300 acres, should be claimed in the names of all seven men at Mt Gipps.

So the original syndicate was formed. It took until early 1885 to establish that there was indeed silver in the hill, a whole treasure trove in an orebody rich, deep and wide, overshadowing everything else on the Barrier.

By this time, three of the first group had sold out and the syndicate had grown to 14 as local businessmen and pastoralists bought in. Those partners meeting in June at Mt Gipps homestead decided to float a public company to raise the money needed for large-scale mining. The shares, 2000 issued at 9 pounds each, were received coolly in Melbourne but were rushed in Sydney, Adelaide and Silverton.

Within three years, Australian share



markets were valuing them at 45 times as much as that issue price. Within six years the new company was paying out 1 million pounds each year in dividends in a bonanza that could not last.

Four of the original seven found themselves rich. Rasp married the girl he had befriended in a coffee shop on trips to the assay office in Adelaide and built a mansion there in which to live a gentleman's life. David James, a damsinker, settled at Kapunda, South Australia, entered state parliament and raced horses, including the 1895 Melbourne Cup winner. Young Philip Charley, the Mt Gipps jackaroo, went on to the BHP board at the age of 21 but soon retired to the Hawkesbury River district to breed horses and cattle. George McCulloch also became a director, was company chairman briefly in 1893, and then retired to London and collected paintings.

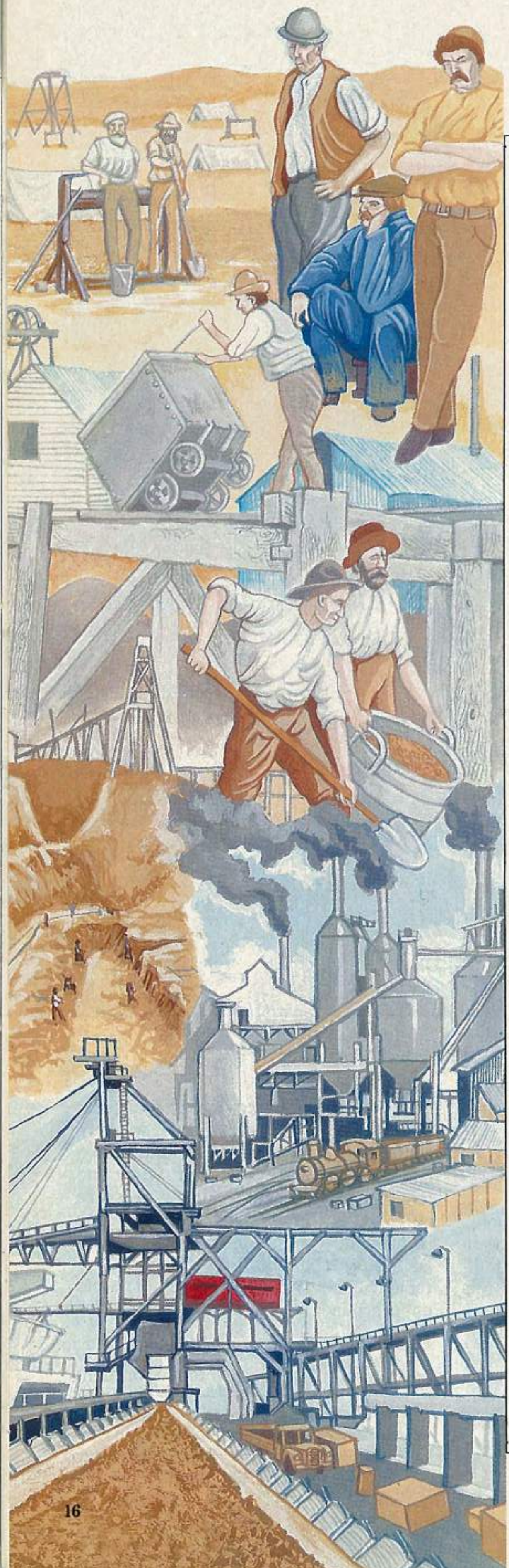
To the three who sold out, Jim Poole, George Lind and George Urquhart, went none of the riches from the fabulous hill.

Within 18 months of BHP's birth the Big Mine at Broken Hill had produced one million ounces of silver. The town that grew up around it had 10,000 people by 1888 and a rail link to South Australia. Other mines were quickly established along the line of lode. BHP kept three of its original blocks and floated off four to other companies.

Early mining efforts were haphazard, resulting in ground subsidence, working conditions were dangerous and living conditions above ground poor. Silver and lead prices fluctuated, putting pressure on costs, but gradually the whole scene improved. Open-cut mining solved BHP's ground stability problems, although from 1895 fires broke out in old underground workings and burned for years.

The BHP directors, in what was to become a characteristic move, brought

Tipping and sorting the ore from McCulloch's shaft at Broken Hill in 1887.

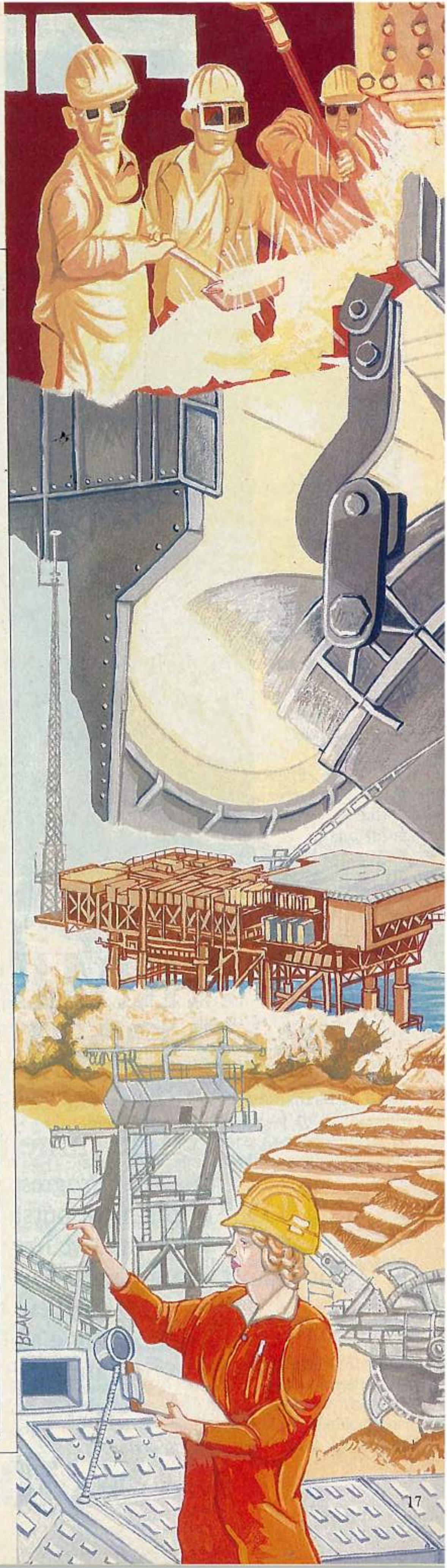


100 years

1883	Syndicate of seven formed at Mt Gipps station.
1885	Silver, lead and zinc lode discovered at Broken Hill in NSW.
	First BHP prospectus.
	BHP incorporated in Victoria.
1897	BHP leased Iron Knob and then Iron Baron area.
1907	Trial smelting of iron by BHP at Port Pirie.
1911	BHP's decision to enter iron and steel making.
1912	Newcastle Iron and Steel Works Act (NSW) passed.
1915	Newcastle Steelworks officially opened.
	Completion of Whyalla jetty.
1926	Officers Provident fund begun for male staff.
1927	Staff training scheme introduced (at Newcastle steelworks).
1935	BHP bought all of AIS shares.
	Group employment reached 10,000.
1939	BHP ceased mining at Broken Hill.
1941	Blast furnace and shipyard opened at Whyalla.
1947	Female Staff Provident Fund introduced.
1950	Iron ore quarries established, Cockatoo Island, Yampi Sound.
1954	Kwinana fence post plant opened.
1955	Flat products division established at Port Kembla.
1956	Commissioning of No 2 open hearth steelmaking shop, Port Kembla.
1957	Central Research Laboratories, Shortland opened.
1958	Iron Baron quarries reopened.
1961	Ferro alloy plant established, Bell Bay, Tasmania.
1962	Open hearth steelmaking at Newcastle replaced by BOS furnaces.
1964	Koolan Island iron ore quarries opened, Whyalla steelworks commissioned.
1965	BOS furnaces and second blast furnace at Whyalla commissioned.
	BHP and Esso discover commercial quantities of natural gas in Bass Strait.
	BHP Wages Employees Retirement fund introduced. for wages employees.
1966	Coffin Bay limesands opened up.
	Groote Eylandt manganese quarries commissioned.
1967	Commercial quantities of crude oil discovered by Esso and BHP in Bass Strait.
	Koolyanobbing iron quarries commissioned.
	Group employment reached 50,000.
1968	Sinter plant and blase furnace established at Kwinana.
1969	Melbourne Research Laboratories, Clayton opened.
	Mt Newman iron ore project opened.
1969	First deliveries of Bass Strait natural gas to Victorian customers.
1971	BHP and Esso's oil and natural gas fields in Bass Strait in full production.
1972	BOS shop at Port Kembla established.
	BHP House completed.
	BHP Staff Superannuation fund replaced Officers Provident Fund.

# of BHP

1973	Port Kembla steelmaking expansion to 5.5m tpa completed. Rheem Australia Ltd becomes BHP subsidiary.
1974	Australian Industrial Refractories Ltd acquired.
1976	BHP joins with Shell to develop North West Shelf natural gas. Geelong Rod Mill opened. BHP Staff Superannuation Fund opened to women.
1977	BHP completes purchase of Peabody Coal interests, 58 per cent of the Moura and Kianga export coal operations, in Queensland. BHP-Monsanto styrene monomer plant in Melbourne commissioned. BHP-Newmont Telfer gold mining operation in Western Australia commissioned.
1978	Port Kembla Steelworks 50th anniversary; continuous slab caster commissioned. Hot strip mill commissioned at Westernport.
1979	Iron ore benefication plant at Newman opened. Remaining 50 per cent share in John Lysaght (Australia) Ltd purchased from GKN.
1980	Work starts on first phase of North West Shelf project. Papua New Guinea Government approves Ok Tedi development proposals. Gregory Coal mine opened. BHP Employees' Superannuation Fund succeeded the Wages Employees Retirement Fund.
1981	Sales agreement reached for TDM Riverside Coal Project. BHP announced as manager for third Newcastle coal loader. North West Shelf LNG memorandum of intent signed by Japanese buyers. BHP to participate in full feasibility study of uranium enrichment plant.
1982	Universal rail plant opened at Whyalla. Saxonvale coal mine commissioned. Cessation of open hearth steelmaking (Port Kembla).
1982-83	Steel Division sheds one-third of industry jobs.
1983	Utah international mining interests bought from General Electric Company (deal covered by conditional agreement). BHP awarded oil exploration rights in China Seas. Riverside coal mine opened. Five-year Steel Industry Plan launched. Offshore oil discovered in Northern Territory (Jabiru).
1984	Utah acquisition completed. Worsley alumina refinery commissioned. Ok Tedi commissioned (gold production). Kooragang coal loader commissioned. Gimlet South gold project at Ora Banda announced. North West Shelf domestic gas phase commissioned. Brisbane steel mill announced.
1985	Energy Resources Group Inc. acquired. Joint BHP/Shell bid for Woodside Petroleum. New BHP Steel International group formed.



This Chinese character is read as *iwai* in Japanese and means "Best Wishes" or "Felicitation" and, in this case, is written in special calligraphy called Kantei.

in W.H. Patton, an eminent US mining engineer, and other experts to help cope with the technical problems. In 1898, Guillaume Delprat, a mining man of Dutch background and international repute, was recruited as general manager.

Delprat solved the riddle of separating metals in the ores won from deeper levels which had heavy sulphide inclusions. With BHP metallurgist A.H. Carmichael, he devised the flotation technique which is now basic minerals processing the world over. This restored BHP's profits.

Twenty years of operation had produced some 8 million pounds in dividends for shareholders, who by 1905 numbered about 8000. A London newspaper described the Big Mine as "the best managed in the world". By 1907 there were 5000 men on the company payroll.

BHP had faced its first strike at Broken Hill in 1889 when unions won recognition. Fresh disputes followed and in 1892 six strike leaders were jailed on conspiracy charges. Then, after the metal market collapsed in 1909, BHP moved to cut wages, resulting in a stoppage which lasted until 1911 with more arrests of union men.

Besides the noisy marches, fiery speeches and scuffles with police, the strikes produced a highly-charged climate of industrial bitterness which became legendary in its intensity. The BHP directors of the day developed a marked hostility to the arbitration system's concepts of justice.

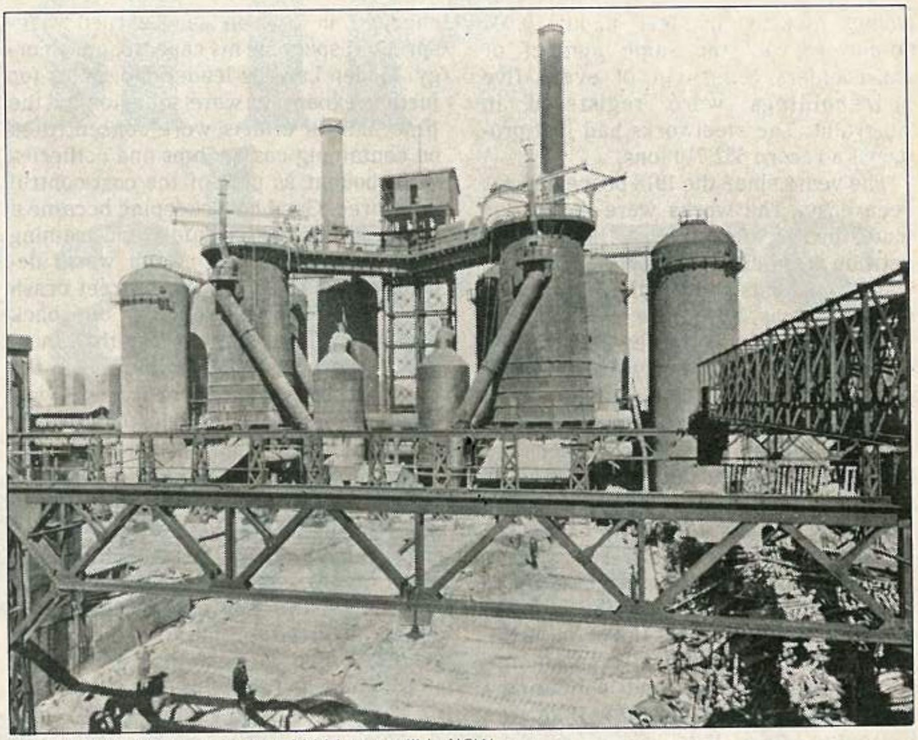
The uneasy industrial peace of the early war years was broken in 1917. Then a series of strikes resulted in a 1920 award giving the miners a 35-hour week, higher wages and other gains. The generous judgment was made when lead was at a record 38 pounds a ton. That price fell away almost at once and stayed low for 25 years.

The Big Mine was already substantially depleted and full working was never resumed there after 1920. It closed in 1930 after yielding 189 million ounces of silver and more than two million tons of lead and other metals.

Labor helps the capitalists into the steel industry

It was the ore from another fabulous hill that now engaged the interest of the men at BHP.

The company had built its smelters at Port Pirie on the eastern shore of Spencer Gulf, a small wheat port linked to the South Australian rail system which was used to ship supplies to Broken Hill.



The No. 2 blast furnace at the old Lithgow mill in NSW

Base metal smelting furnaces need ironstone as a fluxing agent, and that was found in Iron Monarch, a hill some 30 miles inland from the opposite shore of the gulf.

Iron Monarch and its smaller neighbor Iron Knob were rich deposits indeed, but already under lease. In 1899 BHP disputed the claim, won the case, and also won agreement from a sympathetic state government to the building of a tramway (railways had to be government matters) from the ironstone hills to Hummock Hill on the coast. The line was operating by 1901.

In 1905, Delprat smelted a sample of Iron Monarch ore and knew he had the basis for a successful steel industry.

Federation brought a burst of confidence and investment, particularly in the state railways. Huge shipments of steel rails were being imported and the New South Wales Government had struck a special deal with the iron and steel works at Lithgow to supply the state's needs. Then recurring strikes at Lithgow prompted the state's first Labor government, newly elected, to remember that steel nationalisation was state party policy.

Premier J.S.T. McGowan brought a steelmaster from Scotland to Sydney to advise him, but was disconcerted when told that a state-owned plant (Port Kembla was envisaged as the site) would cost at least 1.5 million pounds, far more than expected.

It was at this point in May 1912 that Delprat went to see J.H. Cann, the state treasurer, whom he knew.

BHP also had an adviser, one David Baker, a consulting engineer from Philadelphia. He was already "enthused" by the Iron Monarch ore and satisfied that Australia could support a modern steelworks profitably. He recommended Newcastle with its nearby coalfields as the site. All this was explained to Treasurer Cann; how would the government view such a proposal?

The Labor cabinet hesitated only briefly. By November the necessary legislation for the Newcastle development was passed amid protests from the Labor faithful. The newly-established (and Labor-sponsored) Commonwealth Bank agreed to underwrite the necessary share and debenture issues. BHP shareholders had already approved the venture.

David Baker, appointed as manager, had the new steelworks ready by June 1915 for opening by the Governor-General. Newcastle steel was soon being shipped to Australian markets and to the war front in France.

BHP had invested about 1.5 million pounds in the works.

Chairman Harold Darling went to the company's jubilee annual meeting in September 1935 to announce the best profit for 40 years and to speak of impressive growth. BHP had 10 million pounds invested in steel, about 10,000 employees and the same number of shareholders. Four out of every five shareholdings were registered in Australia. The steelworks had just produced a record 552,710 tons.

The years since the 1918 peace had not been easy. The works were closed for nine months from May 1922. Competition from cheap imports while local wages and costs remained high lost 5000 men their jobs. Later, the steel industry was temporarily exempted from the introduction of the 44-hour week and gradually the order book was refilled.

Satellite industries helped. In the post-war years BHP encouraged the building of wire-drawing, sheet and steel, and pipe-making plants at Newcastle and supplied them with feedstock. Besides that, BHP itself had a new source of inspiration for efficient operation. Delprat had told his board in 1919 that he wanted to retire. In the following year one of his technical recommendations was challenged and in February 1921 he stood down. The new man was Essington Lewis, then 40, the first Australian-born general manager. He had gone to work for BHP as a young mining engineer in 1904 and had earned widespread respect for his capacity and energy. Under Lewis's leadership, plans for further expansion were set aside for the time and all efforts were concentrated on containing costs. Ships and collieries were bought as part of the cost-control measures. Good housekeeping became a fetish and extensive safety and training programs introduced. When world depression followed the Wall Street crash of 1929, Newcastle had to cut back output but fared much better than most other producers. BHP steel was the cheapest in the world and Lewis was proud to claim that Newcastle's technical standards compared with any.

The other steelworks, Australian Iron & Steel Ltd's Port Kembla plant, was not doing as well. Sydney ironfounders George and Charles Hoskins had bought the Lithgow steelworks in 1908, but found after the war that making steel inland involved prohibitive costs. So, from 1925 and with the next generation of the Hoskins family in control, AI & S was formed to build a new plant at Port Kembla, with the good quality south coast coal nearby. But world depression caught the new company over-extended and there was no financial help at hand. In July 1935 the Hoskins brothers sought a meeting with Essington Lewis, and in October AI & S became a BHP subsidiary. The Australian steel industry had become a monopoly. Port Kembla was bought with an exchange of scrip; it involved an increase in BHP's shares on issue of only 17 percent.

Essington Lewis leads the industries into the war

In 1937 BHP profits passed the 1 million pound mark for the first time since 1891/2 and steel output topped 1 million tons for the first time. The performances were satisfying but both Essington Lewis and Harold Darling were gravely concerned with the portents of coming war. Lewis brought this concern back from an overseas trip in 1934, and from then on made as many preparations as possible.

In 1936 BHP joined the Broken Hill Associated Smelters Ltd (whose chairman was W.S. Robinson) and four other companies to form Commonwealth Aircraft Corporation Pty. Ltd. CAC established a plant at Fisherman's Bend in Melbourne in time to build more than 1000 planes

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AI&S Flying Shear, Port Kembla
AI&S Hot Strip Mill, Port Kembla
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GUILLAUME DELPRAT, *BHP general manager from 1899 to 1921, came from a Basque family that had migrated to Holland. His father, a major-general, became Dutch Minister for War. Young Guillaume was a brilliant student who studied mining engineering in Britain and Europe. He was fluent in languages and a man of some charm. He was working on a mine in Spain, enjoying life in Cordoba with his wife and five daughters, when invited to go to Broken Hill. Once there he quickly became one of the most powerful men in the industry, but then largely led BHP away from the Big Mine and into steel. He worked closely with John Darling, the Adelaide businessman who had become chairman in 1907. After his retirement to make way for Essington Lewis, Delprat continued to live in Melbourne, was active in the short-lived Single Purpose League formed to oppose compulsory arbitration, tinkered with radio and took up sculpture. He died in 1937 aged 79.*

ESSINGTON LEWIS *was for long one of the most influential men in Australian industry. He went to work for BHP in 1904, a young student just out of the South Australian School of Mines. His father John Lewis was a businessman and state parliamentarian, and young "Snowy" Lewis was a well-known sportsman. He played football for Norwood and the South Australian state side and was good at virtually any game. His biographer, Geoffrey Blainey, says that had Lewis died at the age of 30 his obituary would have been in the sports pages. Lewis became BHP general manager in 1921, and went on to lead the company through depression and recovery and the nation's industry through war. He served as director-general of munitions and later also of aircraft production, and was made Companion of Honor in 1943. Lewis joined the BHP board in 1926 but stood down in 1938 (while remaining the company's chief general manager) until 1950, when he became chairman for two years. He was then deputy chairman until October 1961, when he died riding at his country property in Victoria with his daughter, horse and man falling together. He was 80.*

during the war. Australia, a country which had produced notable aviation pioneers, at last had an aircraft industry.

Both steelworks were expanded and munitions annexes added. Meanwhile, Hummock Hill on Spencer Gulf had become the town of Whyalla and in 1937 BHP agreed with the South Australian Government to build a blast furnace there. Two years later Canberra asked BHP to build warships. By 1940 the keels of two patrol vessels were laid at a new shipyard at Whyalla.

At Newcastle BHP engineers found ways to replace imports of such materials as tungsten carbide and magnesium metal. A new bullet-proof steel which would be made from locally available alloys was developed.

When in May 1940 the European war took a turn for the worse with the Nazis invading France, Prime Minister Bob Menzies saw the need for a supremo to mobilise war production. His choice fell on Lewis. A new munitions organisation increased output almost four-fold in its first six months.

There was some suspicion of Lewis's role among the Labor ministers who took office in 1941, although Ben Chifley, the Labor leader-to-be, served on the BHP man's team. But the worth of his leadership was soon recognised and he was made responsible for aircraft production as well. In 1943, after some demurrer on Lewis's part he was accorded the rare distinction of being made a Companion of Honor.

The years of war meant a punishing schedule even for a man with Lewis's capacity for work. He remained chief general manager of the company (but resigned the board seat he had been given in 1926) and took a small personal staff of company people to work with him.

The pressure fell away as the tide of the fighting turned, and in March 1945 Lewis went back to BHP. He found a company facing difficulties on every side, with plant showing unmistakable signs of over-commitment, manpower short, labor relations strained, and above all, coal supplies inadequate. Peace was clearly to bring a new range of opportunities and some problems.

Then with the peace it all starts to become bigger

With hindsight, developments within the BHP group during the fifties and sixties clearly provided the springboard for the substantial growth to follow.

After a frustrating interval the steelmen broke out of their doldrums with the building of big new plants. BHP minerals were once again offered on world markets. There were moves in new directions, including one into oil exploration.

The centrepiece of post-war steel expansion was the building of a 1 million ton-a-year hot strip mill at Port Kembla at a cost of 40 million pounds. The opening of the mill in 1955 owed much to Arthur Calwell's migration program; it was the new settlers from Europe who made up the extra manpower needed for Port Kembla's future.

At Newcastle, older plant units were replaced, land was reclaimed from a river channel to provide much-needed space, and then in the early sixties new basic oxygen converters were installed instead of the ageing open hearths.

In deals with the West Australian Government providing access to new iron ore deposits, BHP agreed to build first a rolling mill and then a blast furnace at Kwinana. A steelmaking shop and rolling mill, opened in 1965, was added to the Whyalla works.

The steel-using subsidiaries all expanded, and John Lysaght Australia (not then within the BHP group) built a new plant at Port Kembla.

In 1963, BHP minerals man Keith Rowell and Murray Lonie agreed with the missionaries and island people on Groote Eylandt in the Gulf of Carpentaria to mine the promising manganese ore deposits there. First shipments were made in 1966 to the new ferro-alloy plant at Bell Bay in Tasmania, and soon the manganese was also being sold competitively on world markets.

Iron ore began to earn export income

after BHP in 1967 joined the Mt Newman venture to work a huge ironstone deposit in the Pilbara.

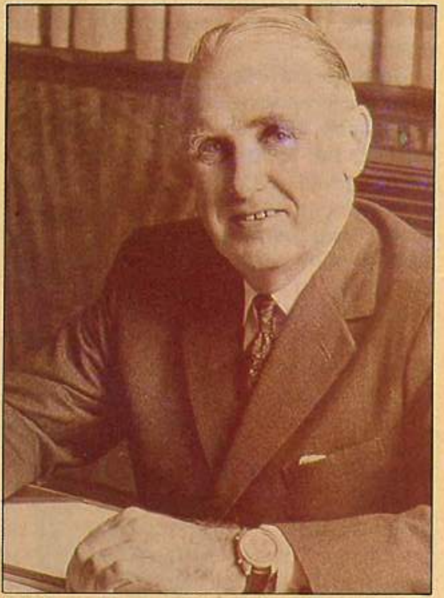
The company's fleet was greatly expanded and a new research establishment opened at Shortland in New South Wales. Profit for 1965 was an all-time high; shareholders' funds at 269 million pounds had more than doubled in five years.

Essington Lewis had become chairman in 1950 after the death of Harold Darling, but two years later stepped down to become deputy chairman. Colin Syme took his place. Lewis remained a director until 1961, when he died aged 80. Syme was chairman until 1971.

On the advice of American management consultants the company was reorganised in 1966 with the aim of setting up operating divisions as profit centres. Engineer Ian McLennan became managing director. It was conscious planning for growth.

It needed to be, for in the late fifties BHP had begun looking for oil in the Sydney sedimentary basin. That came to nothing. But in 1960 an American expert named Lewis Weeks, brought in to advise, had told Ian McLennan that BHP could find oil in Bass Straight.

HAROLD DARLING *was BHP's longest-serving chairman, holding that office from 1923 to his death in 1950. He went on to the board in 1914 in place of his father John, who died on the eve of the completion of the Newcastle steelworks, a project he had done much to foster. H.G. Darling's term coincided with much of Essington Lewis's period as the company's chief executive. The two men were very close, writing notes each to the other as "Dear Willie" and signing them "Willie". There has been a member of the Darling family on the BHP board continuously ever since John joined first in 1892. He served as a director for 22 years, and Harold for 36 years. The longest-serving director was Bowes Kelly, one of the founders, who remained on the board for 45 years.*



IAN McLENNAN *completed his engineering course at Melbourne University and in 1933 went to work at BHP's quarry at Iron Monarch. He moved up through the company's executive ranks to go on the board 20 years later. Then, as chief general manager first and managing director from 1966, he led the group through a period of unparallelled expansion, particularly in mining and steelmaking. It was also a period of rapid technological change, accompanied by growth in research and development staffs and facilities. It was to Sir Ian McLennan (he was knighted in 1963, as was the company's long-serving chairman, Colin Syme) that Lewis Weeks first spoke of Bass Strait's possibilities. The BHP man was astounded at the prospect, but had no hesitation in accepting Weeks' advice that, by the time the oil was found, petroleum engineers would be able to cope with deep and stormy waters.*

Going offshore for oil and finding new horizons

The development of the Bass Strait oil and gas fields established new records for scale and speed in Australia and transformed the national economy in the process.

Ian McLennan had little trouble in persuading his fellow directors to take Lewis Weeks at his word, and by 1961 BHP held permits for much of the strait. Seismic survey of the Gippsland Basin in 1963 proved promising, and on the basis of this, BHP invited 10 leading oil companies to bid for a partnership. Esso's offer of 1964 surpassed all others. The first well spudded in by the new partnership struck gas in February 1965, and the third well struck more.

It was to be two years before a major oil field was found (it was Kingfish) but in the meantime a construction base was operating at Barry Beach in Gippsland. In 1968, with more oil discoveries, new platforms were quickly built and BHP shares sold at $25.

The first gas was delivered in March 1969 and the first oil seven months later. In three years to 1970 BHP had committed nearly $136 million to Bass Strait. Much more has been spent since.

Flushed with success, BHP set about creating a fully-fledged petroleum division and began exploring over much of Australia and overseas. By the eighties these efforts included oil searches in China (both on land and offshore), in the North Sea and in the US. Exploration in the Timor Sea off Australia's north west resulted in the discovery of two fields, Jabiru and Challis, which are being prepared for development.

It was in 1971 that an exploration group led by the Australian company Woodside and Burmah Oil of Britain found a huge gas field on the north west continental shelf. Burmah Oil, facing financial problems elsewhere, sold out to BHP in 1976. After various changes in the partnership arrangements, including BHP and Shell Australia taking over control of Woodside, those two companies have become the main participants in the $11 billion North West Shelf Project, supplying gas to Western Australia and for export.

These years also saw BHP extending its interests in other directions. The NSW collieries supplying the steelworks were upgraded and new mines opened. Then the group got into the coal export business with the purchase in 1976 of a controlling share of the Moura-Kianga mines in Queensland's Bowen Basin. Three years later a big open cut was opened at Gregory, north of Emerald.

After long negotiations, agreement was reached with Reynolds Metals of the US and other companies to build an alumina refinery at Worsley in Western Australia, based on a bauxite deposit in the Darling Ranges in which BHP had a half interest. Efforts to get into aluminium smelting failed.

In 1975 BHP took a 30 percent interest in the Telfer gold project on the edge of

Western Australia's Great Sandy Desert and — in a different kind of resource development — took a half share in Ralph Sarich's invention of a new design for an auto engine.

Looking overseas to find room for the next 100 years

BHP approached its centenary year with a cloud hanging over steel, the industry which had proved the early basis for the company's financial strength.

The seventies had opened on a high note with the company committed to spending $220 million to expand the capacity of its plants to 9 million a year. In 1969 BHP had taken up a half share in John Lysaght Australia and intended to build a steelworks at Victoria's Westernport. But costs were rising, and while profits held for a time, the return of funds was poor. The Federal Government had the Industries Assistance Commission investigating.

In 1979 Lysaghts became a wholly-owned subsidiary, but the downward trend was continuing. In 1983 the market collapsed. Only five of 12 blast furnaces were operating. Rationalisation became essential.

In a comprehensive recovery plan, old plant was put out of service and nominal capacity reduced to 6.6 million tonnes a year. Steel division workers were cut from 44,250 in 1981 to 29,000 in 1983. Extra protection against imports was provided. An industry authority, which included union representatives, was appointed by the government to monitor progress.

The leaner steel plants produced better results as productivity improved and demand increased. The company's 100th year was seeing the benefits of reorganisation with the steel-using subsidiaries more closely integrated.

Meanwhile, there were new opportunities arising overseas.

In 1976, BHP agreed with Michael Somare's Government to look into the possibilities of the Mt Fubilan gold-copper deposit in spectacular but inaccessible country in western Papua New Guinea. Kennecott Copper of the US had discovered the ore but then declined to work it.

After protracted engineering studies, Ok Tedi Mining Company was formed with BHP, American and German interests and the PNG Government as shareholders. The mine's first development stage was opened in 1984 at a cost of $1 billion. Full scale operation will cost twice that much.

In August 1982, John Burlingame of General Electrics of the US came to lunch at BHP House in Melbourne. He put the question to chairman Sir James McNeill: would BHP be interested in buying GE subsidiary Utah International Inc, the San Francisco-based resource group?

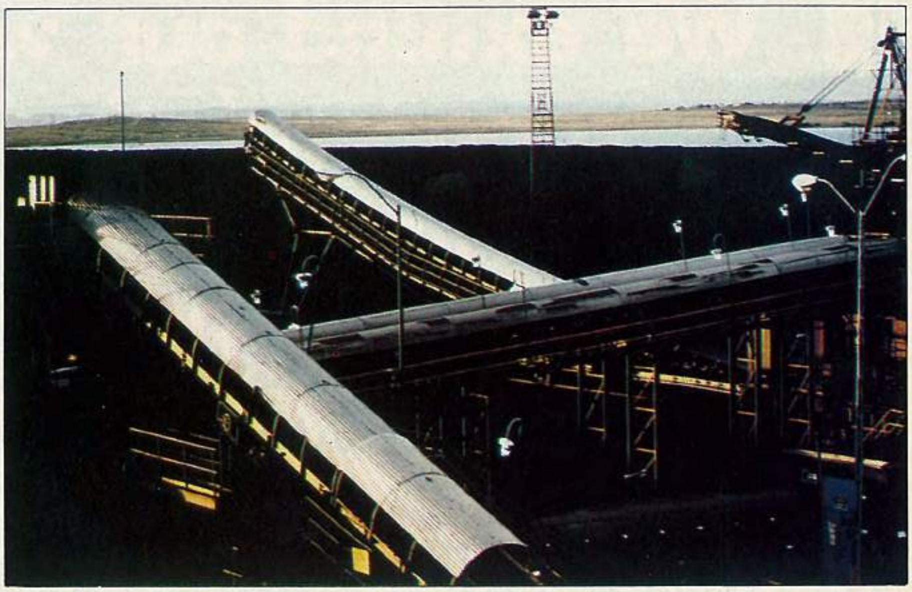
Negotiations took until January 1983 and a complex $2.4 billion proposition emerged. BHP bought Utah's mining interests in the US, Canada, Brazil, Chile and other countries, and set up the Utah-managed coal mines in Queensland with BHP's own Gregory mine in two trusts with a 35 to 45 percent BHP interest. Utah International became a BHP subsidiary and continued to manage the properties involved.

Then in late 1984 the company rounded off its overseas forays with a successful $US504 million bid for a Kansas-based petroleum company, Energy Reserves Group Inc. ERG has an extensive exploration program and 1400 producing wells in the US and Canada.

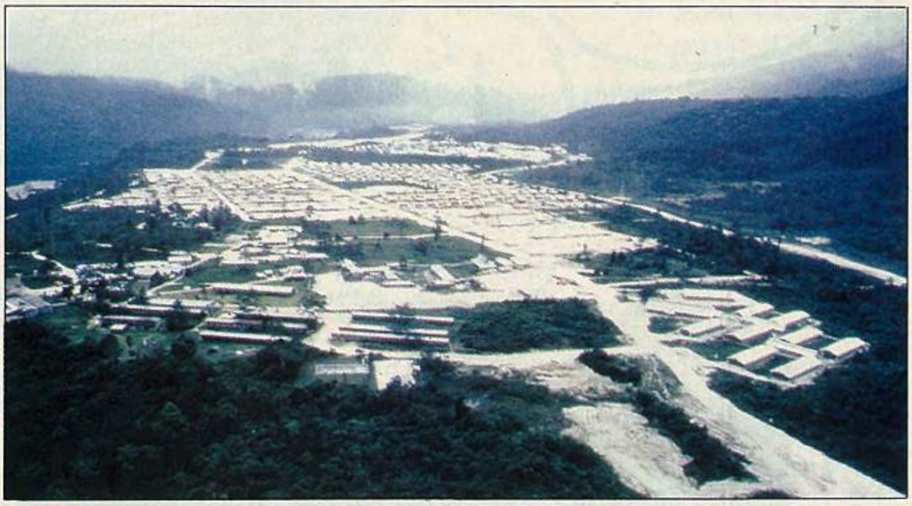
These developments capped a decade of progress that was indeed impressive. In the 10 years to 1984, group sales trebled to nearly $5.4 billion. BHP profit passed the $100 million mark for the first time in 1972, rose to more than $200 million in 1978, then leaped by $100 million each year for three years. After checks in 1982 and 1983, the 1984 result was $638,692,000. The centenary year result will be higher still.

The company's operations now make up about 2 percent of Australia's GDP, and provide about 8 percent of the nation's exports.

It all seems a long way back to that rocky hill alive with wallabies and the quiet boundary rider thumbing through his prospectors' guide. ■



Utah's Navajo coal mine in New Mexico, US. Part of BHP's expansion overseas



One of the modern engineering marvels of the world. The OK Tedi gold and copper mine in the remote highlands of Papua New Guinea

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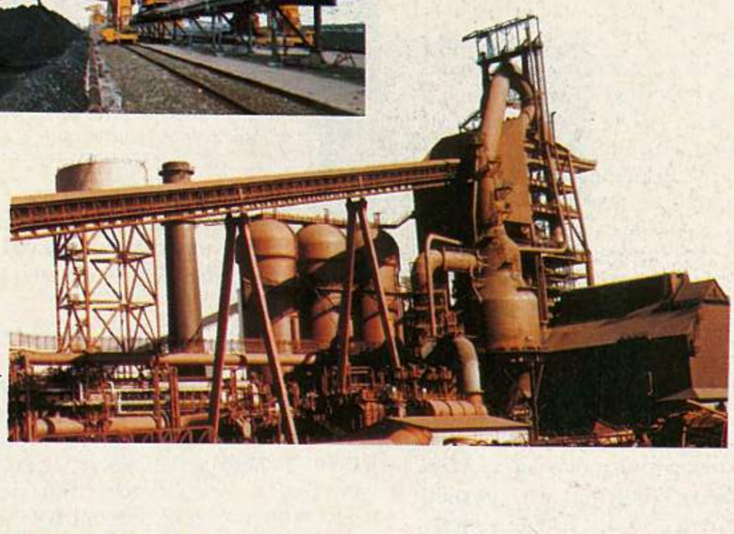

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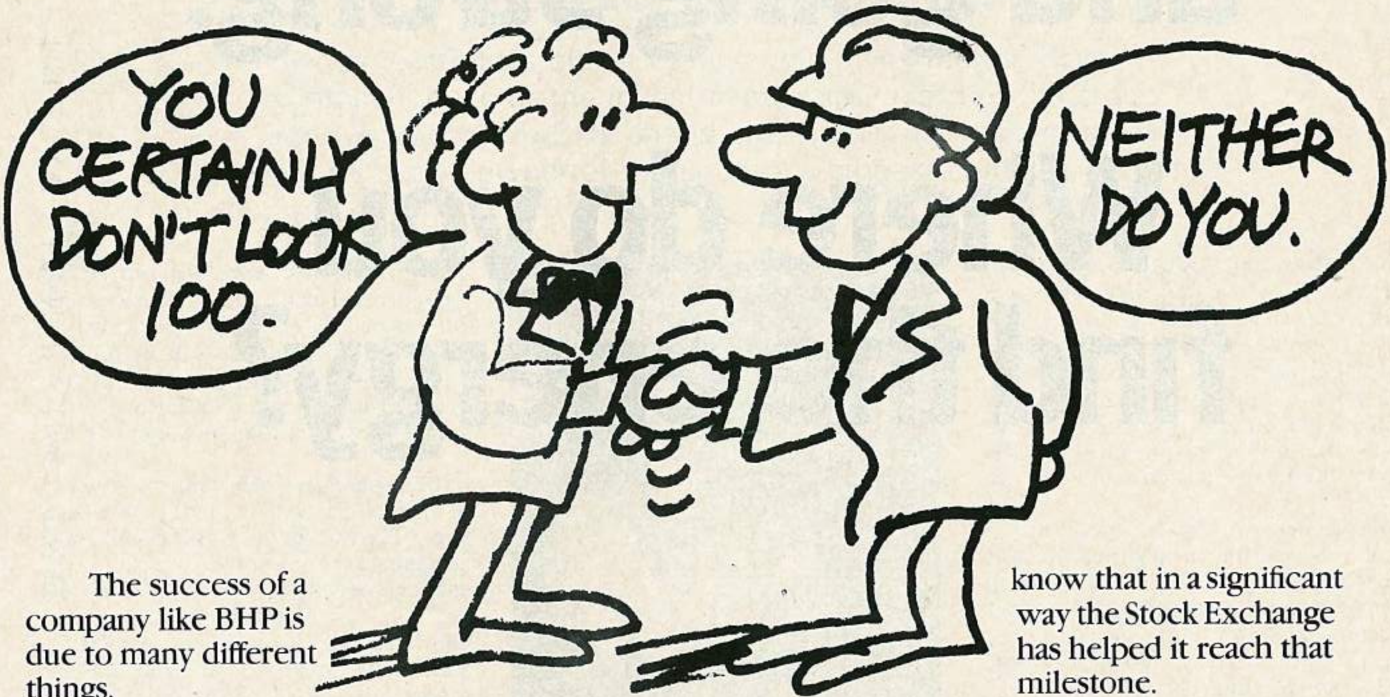

The success of a company like BHP is due to many different things.

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BHP is Australia's bluest of blue chip investments. Graeme Adamson looks at the investment track record of the stock and we talk to five BHP shareholders on what it feels like to be a part-owner of the country's biggest company.

After the Second World War, Australian sharebrokers recognised the potential support of overseas investment institutions. Headed by J B Were & Son, they either established offices or travelled to London to market Australia to the growing number of fund managers in the City.

Their strategy was unchanged from broker to broker. They all landed in London carrying a review on BHP, and almost invariably the second string was the largest bank — in those days, the Bank of New South Wales.

BHP was "sold" to the London managers because of its role as Australia's only steel producer in a world where post-war rebuilding was creating expanding demand. The overseas interest spread to New York in the late 1950s. It was support emanating from Wall Street which resulted in BHP spearheading an almost boom market which more than quadrupled the stock's capitalisation in the five years to 1960, accentuated by demand for steel. BHP perhaps did not have time to accelerate its own move into the resources sector at a time when the great discoveries of mineral and energy wealth were about to put the nation on the international investment market.

Bass Strait changed all that. But in an investment market where steel on a world-wide basis moved from a leader to a laggard, BHP shares have not always received the recognition that is merited by the company's pre-eminence in the oil exploration industry.

BHP is clearly Australia's largest stock in mid 1985. Only once in recent years has there been another company with greater capitalisation, and that was for a few weeks. It is, though, no longer automatically the first stock that visiting Australian brokers recommend abroad.

To a large degree that reflects the perception of BHP as being too big for the Australian market, with more than 1000 million shares on issue and with the holdings spread among 164,000 share holders.

All investment institutions have their fill of BHP in Australia. Probably most serious private investors have a portion of their holdings in the company.

It is therefore somewhat surprising to discover that the number of shareholders in BHP has fallen from a peak of 191,000 in 1974, against the trend of other leading energy shares. The capital adjustments of 1984-85 have resulted in a lower ticket price on the stock, which may have the effect of regenerating interest among smaller holders.

In part, however, the dwindling interest of smaller shareholders reflected in those figures may indicate a perception of BHP as a non-performing company in the inflation-savaged second half of the 1970s.

The company's policy, abandoned in 1983, of stating profit after a fixed asset utilisation charge, was an important factor. This effectively provided accelerated depreciation for replacement of assets at current costs.

With the flat economy of the period and sustained inflation, BHP's stated profit performance was sluggish. The company appeared to put considerable public relations effort into emphasising its own lack of performance as a means of attacking government policies and unions.

The result was that the awareness of investors was more of BHP's massive investment and lack of profitability in steel, rather than the potential growth in earnings from oil production and in reserves from exploration.

BHP no longer had the image of the dynamic leader in the market. Brokers were confused as to how to assess the stock. They were sympathetic initially to the FAU accounting approach adopted by the company. However, progressively their analysts reassessed their view.

For a period, brokers in their recommendations to clients stated profit on both a before and after FAU basis. This approach had the inevitability of adding to the confusion, no matter what the underlying analysis proved.

In 1982, BHP's stated profit, after fixed asset charges of $210.7 million utilisation, was $154 million. The following year, after the company changed its FAU policy, profit was $252.8 million and brokers and the market were putting question marks over the investment merits of BHP.

As so often over the past century, this changed dramatically.

There was an audacious takeover offer for BHP from Wigmores Limited, later to be renamed Bell Resources.

Evidence accumulated that BHP was deadly serious about restructuring its steel division with an emphasis on profitability.

Oil was discovered at Jabiru during a bull share market with some instant predictions from brokers' oil analysts as to the size of the find, that, however, were not substantiated.

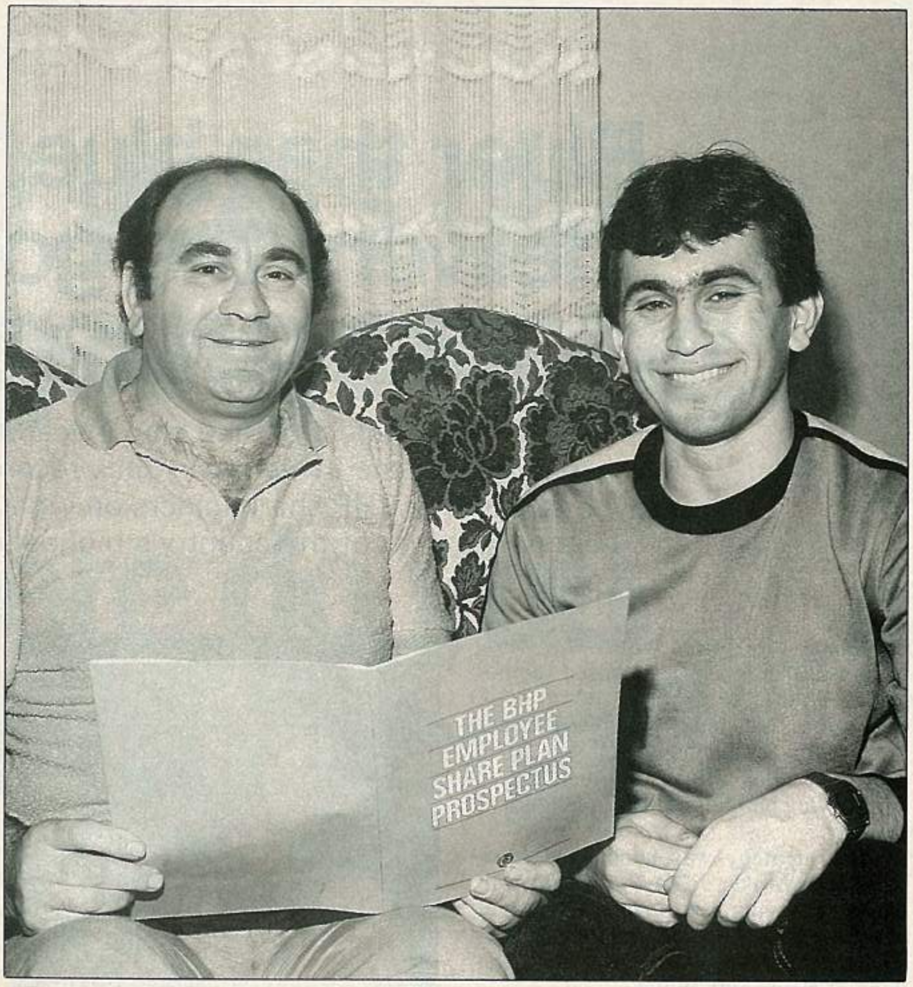
The company, consciously or otherwise, began a policy of closer communications and better understanding with investors and brokers.

Today movement in BHP shares reflect strategy developments based on the resource sector such as the Jabiru discovery and the Utah acquisition.

The company is Australia's biggest coal producer, the largest oil producer and explorer and the only steel producer. Yet despite that remarkable strategic strength its shares invariably sell on a lower price-earnings ratio than much smaller companies in metals or energy.

In 1985 the company has responded to the need of greater investor appreciation. A presentation on the ramifications and potential of BHP was put together, and directors took this message abroad to the world's investment fund managers.

The short-term returns from such an exercise are not necessarily reflected in the share market price. Longer term there will be a wider awareness of the importance of BHP and of its potential.



Greek-born Sylianos Nicolaidis, 48, came to Australia in 1956 and joined BHP's Port Kembla steelworks, a job he has held ever since. He is a leading hand welder working as an acting foreman. He has two sons, Adam, 24, and Michael, 20, and both work with BHP. Earlier this year Nicolaidis and son Michael decided to invest in BHP shares. They bought 200 in April, the first shares that the Nicolaidis family had ever owned.

"We bought them because we felt they would be a good investment for the long run. We might make a bit of money or lose the money but we have already added 40 shares with the dividend and bonus. We felt it would be a good idea just to get a part in BHP".

Within Australia, there has also been a marked improvement in communications between investors and BHP. The company, once considered remote, is now seen to be moving to achieve real growth in profits for its shareholders. This is reflected in the share split, the bonus issue and the cash issue which have occurred since 1984.

It is also reflected in the growth of market capitalisation of BHP in the 1980s, despite the unfavorable trend for resource and energy producers in the share market over the past five years.

Australian sharemarkets since the late 1970s have been strongly influenced by takeover activity and speculation. For much of the time, BHP was excluded from this trading. Indeed, in one of those end-of-year summaries which fill in summer space for newspapers, Chanticleer of the *Financial Review* wrote that one of the three certainties for the year ahead in the investment world was that BHP would not make a takeover.

That view has changed. BHP has taken part in two of the largest and most important acquisitions in Australia. It acquired the Utah mines in Australia and abroad from General Electric from the start of 1984. In 1985, together with Shell, it has bid for and obtained a majority interest in Woodside Petroleum. It has also merged its Comsteel subsidiary with Vickers.

The result of the moves is that in the day-to-day theorising of corporate strategies that is so much part and parcel of the Australian stockbroking industry, BHP is now regarded as a thrusting, expansion-oriented group which elects to grow by acquisition in its existing areas of operation. When the ta-

HOW THE SHARE MARKET HAS VALUED BHP

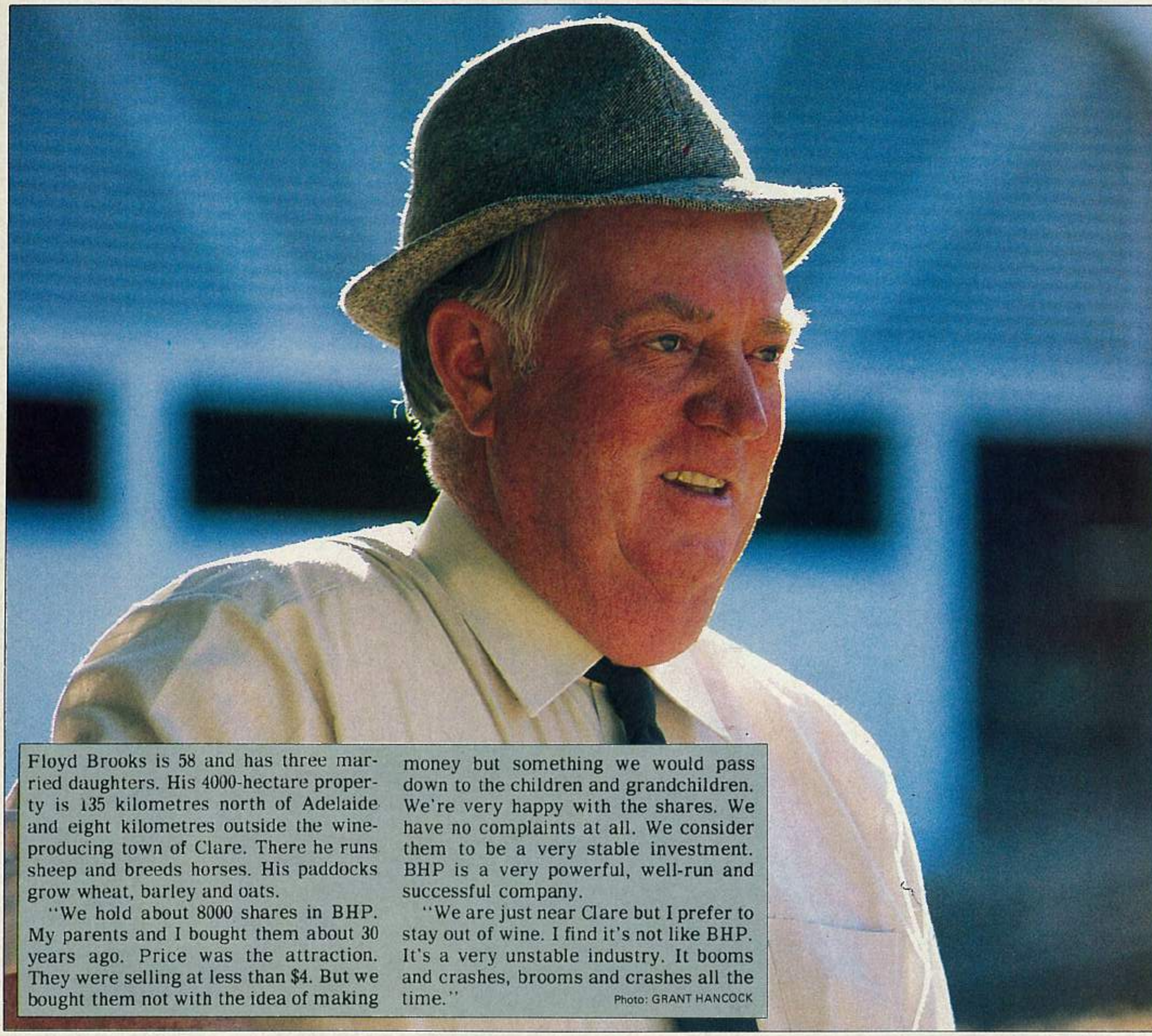
June	
1955	$125.8m
1960	547.3m
1965	542.7m
1970	1920.9m
1975	1431m
1980	4390m
1985	6283.6m

Peter Hardie, 60, lives only 150 metres from the sea at Marcus Beach, eight kilometres south of Noosa. He jogs, fishes and swims, represents Noosa at Liberal Party Conferences and is completing a BA from Deakin University. He was managing director of Biro Bic (Australia).

"When I retired in July 1984 I doubled my BHP shares and then let the dividends be capitalised in the dividend investment plan. I now hold 4672 shares. My first BHP shares were bought more than 25 years ago. I am more than happy with them.

"BHP in its management has a rare combination of progress and prudence. I think they are stepping out of their crease a little more than in former years. But they are not doing it recklessly. I wish when I retired that I had put more into BHP than I did in other investments."

Photo: ALAN JONES



Floyd Brooks is 58 and has three married daughters. His 4000-hectare property is 135 kilometres north of Adelaide and eight kilometres outside the wine-producing town of Clare. There he runs sheep and breeds horses. His paddocks grow wheat, barley and oats.

"We hold about 8000 shares in BHP. My parents and I bought them about 30 years ago. Price was the attraction. They were selling at less than $4. But we bought them not with the idea of making money but something we would pass down to the children and grandchildren. We're very happy with the shares. We have no complaints at all. We consider them to be a very stable investment. BHP is a very powerful, well-run and successful company.

"We are just near Clare but I prefer to stay out of wine. I find it's not like BHP. It's a very unstable industry. It booms and crashes, brooms and crashes all the time." Photo: GRANT HANCOCK

keover fever was at its height in mid-1983, Wigmores, which itself had just been acquired by Bell Group after a protracted battle, made what was widely regarded as the most unlikely bid in Australian corporate history when it offered its shares in exchange for those of BHP.

Brokers, investors, financial commentators and, one suspects, the board of BHP alike did not know how to respond to this move. In the end the bid attracted a modicum of response. However, it concentrated investors' minds on the underlying value of their BHP shareholdings.

This reassessment by brokers was reinforced by the coincidental discovery of the Patrim oilfield within days of the Wigmores' bid. Jabiru has not justified the claims of brokers to having a potential similar to that of Bass Strait, but it has served to demonstrate that BHP is an active company beyond its existing operational centres.

Sharebrokers quickly recognised that Wigmores, renamed Bell Resources, would follow with a further offer for BHP shares, especially as its own shares were outperforming those of BHP in the market. BHP anticipated well the second offer by Bell. It took Bell to court over various aspects of the deal . . . and won.

However, the concept of BHP as a stock too big for the corporate strategists of Australia has changed. Those close to the sharemarket now recognise that BHP shares can be part of a play by the larger conglomerates. The disclosure that Adelaide Steamship Company had been a buyer of the shares late in 1984 served to reinforce this view.

BHP's approach to investor relations appears to have changed remarkably in the past two years. Cynics would say this is a result of the interest of the corporate strategists in the stock; the company's management would probably claim it is coincidental. Whatever the rationale, the company has made members of its board increasingly available to speak to groups of investment analysts and institutional shareholders

Artist Charlotte Moffat, now in her seventies, was born in Berlin, the daughter of a French father and a German mother. To complicate matters she married a Scotsman and migrated to Australia. Her son Gordon is Melbourne's deputy lord mayor.

"I was travelling from Australia to England with my husband Max on the Canberra in 1968. At San Francisco an American couple, Harold Jackson — who owned a printing company — and his wife, joined us. He wanted to know all about Australia. I had a book which told how wonderful Australia is, and after he read it he said he would like to invest in some Australian shares. I said, The best thing I can recommend is BHP, but they are fairly high.

"From the ship — at this point we were between America and Spain — we rang my sharebroker son Gordon at McKinley Wilson in Melbourne and put in an order for a substantial quantity of BHP shares. Then they went to $25 and Harold Jackson sold. But he had difficulty getting the money out of Australia. So he bought several farms with hundreds of acres near Surfers Paradise in Queensland and he sold that farmland in blocks. He made a fortune. He has become a millionaire, and he still has land there.

"I am a BHP shareholder — I have about 5,000 shares — but I haven't done nearly as well as that. Still, I'm very happy with BHP. It's a great success story".

Photo: GREG BARTLEY

around the world. It has facilitated visits by American sharebroking houses to write in-depth reviews on the company. It has enlarged its publications prepared for investors and invited enquiries from shareholders large and small.

The result of all these moves is that the investment community around the world has changed its perception of BHP over the past two years. As it enters its second century, BHP promotes itself.

It is a far cry from a quarter of a century ago when the concept of BHP held by Australian sharebrokers was that it should be in a portfolio solely because it was the nation's largest company. But BHP's attitude then was considered to be that profit and returns to shareholders were less important than the company's role in the national economy. What was good for BHP was good for Australia.

This led in the years before the Bass Strait find to criticism and cross examination of directors by the company's largest personal investor, Albert Shepherd. At annual meetings, in letters to the press and in speeches around the country, Shepherd criticised the board for what he claimed was a lack of consideration for the legitimate aspirations of shareholders.

The pointed and inherently hostile questions at the annual meetings were treated defensively by a BHP board unused to such an approach. It developed a defusing technique at the meetings of calling for questions, writing them down and then answering them collectively. This circumvented the prospect of cross-examination.

Today the company goes out of its way to encourage questions.

In 1984, BHP distributed a glossy book to shareholders in which it described itself as Australia's international resources company. It said that the company was destined to push outwards beyond Australia's borders . . ."BHP is committed to growth wherever profitable opportunities exist."

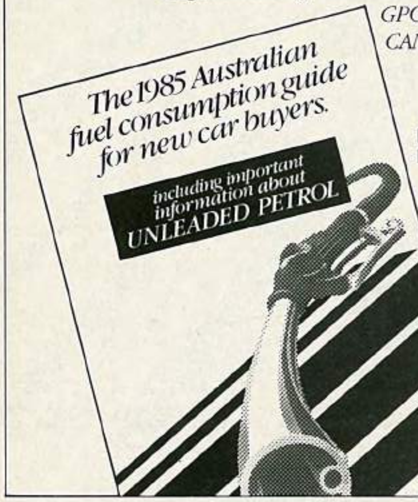
The Utah acquisition included coal mines in the US and South Africa, iron ore in Brazil and copper and molybdenum in Canada. At the start of 1985, it acquired the Energy Reserves Group, which is an oil and gas producer in the US.

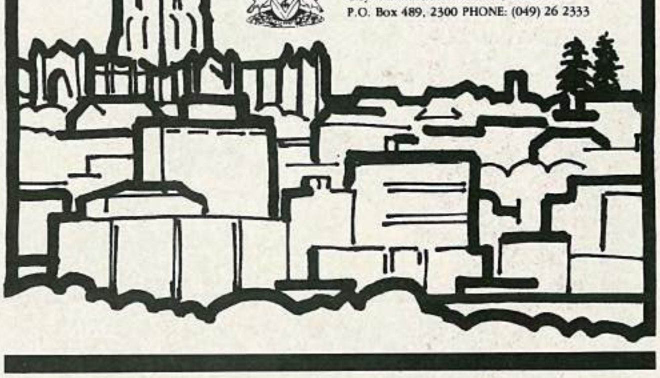
Despite the overseas emphasis and the expectation by analysts that BHP's future thrust will be abroad, sharebrokers and the market continue to assess BHP as an investment based upon its oil and coal pricing in Australia and on its steel production margins.

Participation in another big oil find is the perennial prime objective of traders in the stock, rather than the merited growth from its investment in actual resource development and corporate acquisition.

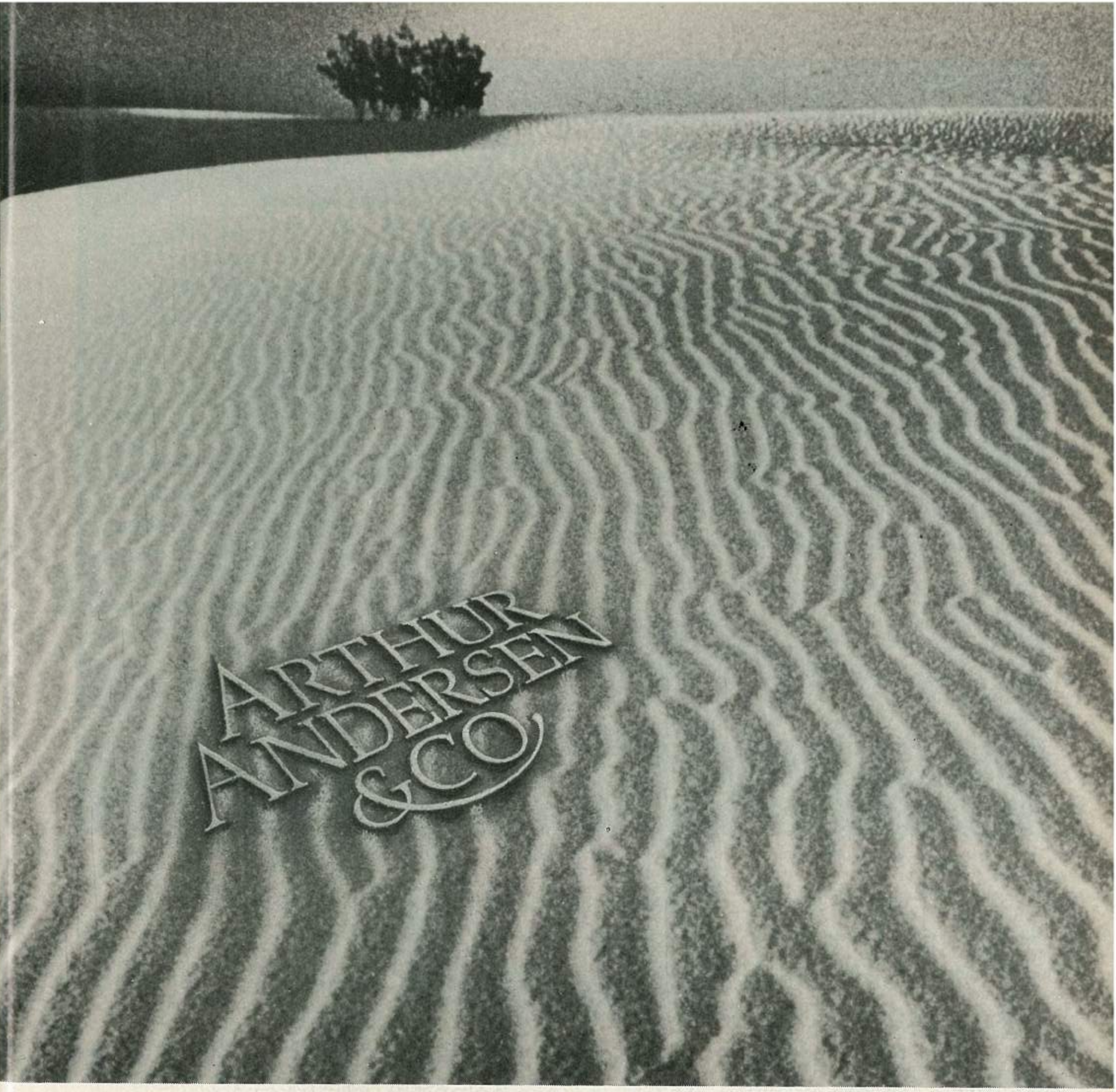
On investment fundamentals, BHP is measured as an international stock. It is too big and too well held within Australia for our sharemarkets to absorb. Its transient share price behavior may be directed by local strategists, but in the longer term movements, BHP in the 1980s only develops direction with the impetus of non-Australian buying or selling of the shares.

The BHP board recognises this; so do Australian sharebrokers. BHP as an international stock is the reality of the perception of J.B. Were and its fellow brokers post war when they walked the streets of the City of London successfully interesting fund managers in the shares of 'The Big Australian.' ▪






BHP HOUSE 140 WILLIAM STREET



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Growing too big for its roots

As BHP outgrows its own backyard the company is casting offshore for expansion opportunities. Alan Deans reports on these international plans and looks at the impact on our local economy.

BHP has grown too big for its roots. Realising that the sheer size of its Australian operations could severely curb further business development, the company is spending surplus funds on buying mineral and energy interests around the globe. At the same time, it is aiming to internationalise itself by encouraging greater foreign investment in its shares.

During the next few years, BHP is expected to have annual cash flows approaching $1.2 billion. Sydney stockbroker Meares & Philips estimates that up to $500 million of that could be spent on buying overseas enterprises, provided the right opportunities exist. Although the company will remain dedicated to Australia through its huge oil, coal and steel operations — and has plans to explore for oil and develop the North West Shelf gas project — these ventures are not enough for the funds that are flowing into BHP's coffers.

The company's scope for further growth is already limited by the surplus capacity it has in many of its domestic operations. This is a prime reason why capital expenditure has dropped from a record $906 million in fiscal 1982 to only $401 million in 1984.

If Meares & Philips is right, and BHP does spend $500 million a year overseas, its international worth will reach about $4.5 billion by 1990, or 28 percent of total group assets. Five years further down the track and international assets could grow to about 40 percent.

BHP's plans will have an important impact on the Australian economy. BHP already generates about 8 percent of our export earnings, with sales in the year to May 1984 totalling more than $1.4 billion. By expanding its overseas assets, the group will have greater influence on Australia's investment policy, the currency and, indeed, the general business outlook.

The company has been accumulating overseas expertise for some time and already has a number of smaller operations including a tin mine in Indonesia, steel processing in the Philippines and New Zealand and oil exploration in the North Sea. Big investments began only a few years ago when BHP joined a consortium to explore for oil off the coast of China and contributed as a 30 percent partner in the $1 billion first stage development of the OK Tedi gold and copper mine in Papua New Guinea. It now has interests in more than 15 countries.

The extent to which the company is prepared to commit itself to overseas investments was demonstrated last year when it paid nearly $US3 billion in two takeovers. The first deal was the $US2.4 billion purchase of General Electric's mineral subsidiary Utah International. The bulk of the deal involved the Utah coal mines in central Queensland (equity in which has subsequently been sold on to other companies), but BHP also bought a range of other assets upon which to expand its international thrust.

Among these foreign assets are the San Juan, Navajo and Sierra coal properties in the US, the Island copper mine in Canada and 49 percent of the Samarco iron ore operation in Brazil. Importantly, the company also bought several potential mineral developments and a strong portfolio of exploration interests.

This will lead to the development of the La Plata steaming coal mine in New Mexico. It will cost $US90 million to build and its 1.5 million tonnes of annual output will supplement shipments from the nearby San Juan mine. The development with most promise, however, is the La Escondida copper deposit in Chile.

La Escondida was discovered in August 1981 and has already become known as the largest undeveloped copper orebody in the world, containing 1.7 billion tonnes of material grading 1.6 percent copper. This reserve is 50 percent greater than all of the known copper deposits in Australia. BHP is believed to favor developing a mine and has completed a final feasibility study, but the go-ahead awaits the sale of Texaco's 50 percent interest which it acquired last year through the takeover of Getty Oil. An open pit is planned with an ore

reserve of 545 million tonnes grading 2.16 percent copper.

The other big takeover for BHP last year was the US oil company Energy Reserves Group. The $585 million price tag bought 27 million barrels of oil and 233 billion cubic feet of gas reserves, but more importantly it also brought a host of exploration permits.

ERG holds 376,000 hectares of undeveloped leases extending across 16 US states. If the deal is to pay off, substantial new reserves must be found in this acreage. For 10 years now, BHP has operated an oil exploration venture in Denver which has been hampered by the difficulty of buying good prospects. ERG is ranked in the bottom third of US companies in its average cost of oil discoveries so it has a track record for finding oil cheaply. It was hamstrung from doing so, however, because of the cost of an ill-timed diversification into minerals early in the 1980s.

Since completing the takeover BHP has paid back ERG's $250 million debt, or taken it on its own balance sheet. It is also boosting expenditure this year from $US15 million to $US50 million on both exploration and increasing equity interests in prospective leases. ERG will eventually expand its holdings into exploration off the coast of the US and into Canada and South America. Its technical staff and geological concepts will also be used in a push into mainland oil exploration in Australia.

An integral part of BHP's international push is its conviction that oil

> Utah and the minerals division will eventually merge, and most international development will be channelled through Utah

prices will again rise from the 1990s. Other oil companies, including Shell, share the belief that the present oil glut will last at most only another five years.

Apart from expanding ERGs budget and moving into oil drilling in China, BHP has recently opened offices in London and Singapore. The British operation will be the centre of a renewed push into exploration in the North Sea through the bidding for new concessions which are due to be issued this year.

Rumors persist that BHP may boost its oil exposure by taking over another international oil company. Before bidding for ERG it considered 250 alternatives and General Electric did offer its subsidiary Ladd Petroleum as part of the Utah package.

A vital part of BHP's international strategy is the Utah operations base in San Francisco. Under the recently announced divisional reorganisation, Utah and the minerals division will eventually merge, and most international development will be channelled through Utah. Already ERG is directed by Utah, with the chief executive, Richard Volk, reporting to Utah's chairman, Bud Wilson.

This policy is partly aimed at having a centralised management structure close to the operational bases, but there is a second and equally important reason. The US tax system allows a deduction against US income for exploration and development expenditure incurred outside of that country. BHP therefore intends to maximise its US earnings by keeping debt to a minimum so that it can write off unprofitable operations, such as oil exploration in China or the North Sea.

The Utah takeover indicates that BHP also considers minerals attractive. This is at a time when disillusioned oil companies are selling their mineral interests after paying top money for them several years ago.

In taking a contrary view, BHP is pursuing its policy of "buying straw hats in winter", first adopted in the takeover of Utah. The company believes that there is no better time to buy than when commodity prices are down and good, cheap assets are available.

The managing director, Brian Loton, emphasised this theme in a recent interview when he said: "The name of the game now is to change (our outlook) to get profits in a low-growth or no-growth environment. We have to improve the performance of our existing businesses and sell resources at lower costs."

If Loton can achieve this, he will go a long way towards promoting BHP's second international goal: to attract more foreign investment in its shares. BHP has 913 million shares on issue, and this year has been valued by the stockmarket at up to $6154 million. That is about 10 percent of the value of all publicly listed stocks in Australia. Such dominance has its drawbacks, especially because it has kept a lid on the company's share price and limited the market for its scrip.

A recent survey of shareholders conducted by the company showed that most wanted share price appreciation, although there was a strong expectation of increased dividends. BHP hopes to boost the share price to a level which better reflects its asset backing by attracting greater foreign investment. Foreigners now hold around 25 percent of the issued capital and this could be boosted to 35 percent. This year the company has started a sales campaign aimed at British and US investors.

> In taking a contrary view, BHP is pursuing its policy of "buying straw hats in winter", first adopted by the takeover of Utah

The general manager, corporate affairs, David Adams, held seminars over several days with fund managers and stockbrokers in London. But the main roadshow came in May when Loton and the executive general manager finance, Geoff Healey, addressed investment managers in San Francisco, Chicago, Boston, New York and Los Angeles.

The main sales pitch has centred around the quality of the group's assets, its international expansion, the strong profit outlook and the strength of its balance sheet. The insular company slogans of the past, such as 'the Big Australian' and 'Australia's BHP', have been replaced by one with broader appeal, 'Australia's International Resources Company'.

The aim is no less ambitious than to alter the entire investment perception of BHP. Until now it has been regarded as a prime blue-chip stock to buy if you are interested in Australia. BHP wants to become known as a company that warrants investment in its own right.

It is not an image that the company can achieve overnight, however. While the recent overseas promotions are said to have been successful, it will take similar efforts over several years to draw

greater world attention to BHP. Indeed, some fund managers expressed concern at the London meetings that the drop in the Australian dollar this year had lost them money on their investments, despite the climb to record levels in BHP's share price.

Apart from the public relations-type approach of emphasising the company's qualities, BHP is also tempting share buyers with cash. Its dividend record has been criticised in the past as being poor, but since last year it has twice boosted dividend, made two bonus share issues and a substantially discounted rights issue. In May 1984, a shareholder with 100 shares would have received a dividend of $23, whereas the same investment would have yielded $44.25 up to April this year.

Brian Loton says: "It is understandable that shareholders should want and receive better returns in times of positive interest rates." He has fattened their wallets, but the 1984/85 payout ratio of 24.7 percent was still the second lowest made by the company in 10 years.

This was artificially depressed by the 153 percent increase in net profit in that year to a record $639 million and it has led Loton to joke that perhaps the way to make the figures look better would be to cut earnings. However it indicates that the company has ample leeway to make much higher payouts.

Despite the improved returns and rosy outlook, BHP shares are still trading at a prospective price earnings ratio of a low 7.5. Some analysts estimate that the company is between 50 percent and 100 percent undervalued, but any significant and prolonged upgrading will occur only if the share base can be broadened.

Some analysts estimate that the company is between 50 percent and 100 percent undervalued, but any significant upgrading will occur only if the share base can be broadened.

The company has taken other steps to endear itself to shareholders. During the past two years it has improved its reporting by dropping the confusing inflation accounting system and has begun issuing quarterly profit statements. It has introduced a dividend reinvestment plan and an employee share plan, and for the first time in 65 years has held a board meeting in Sydney followed by a mock annual meeting for local shareholders and financial managers.

It has been argued that these moves are a direct result of share buying by two corporate raiders, Robert Holmes a Court and John Spalvins. Holmes a Court has mounted two takeover bids and has indicated that he wants to gain control of BHP and split the company up, implying that he could do better than the existing management. Spalvins began buying last December and it is speculated that he is acting with Holmes a Court.

Loton admits that this is "a constant reminder that we have to improve our performance". But he notes that new initiatives had been taken before Holmes a Court appeared on BHP's share register. Outsiders say that Loton is sweeping many of the cobwebs from the company (as witnessed by the recent divisional shakeout) and is promoting a new air of management competition within the group. ▪

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Unearthing the resources wealth of a nation

The transformation from a steel maker to a diversified resources group has seen BHP unearth the mineral wealth of the country. J.N. Pierce chronicles the company's major resource discoveries

When I first started writing about BHP close on 40 years ago, its empire was divided like Caesar's Gaul into three parts: steel at Port Kembla, steel at Newcastle and pig iron at Whyalla.

The mining of silver-lead-zinc at the ragged Barrier Range outcrop, which in 1885 gave the company its name and its reason for being, had ceased before the Second World War. Silver-lead Zinc is a notable absentee from BHP's long list of mineral products, but a rejuvenated steel division is an integral part of the complex web of activities now stretching from the black monolith in Melbourne's William Street to a dozen countries.

Nowadays you find BHP executives in London's Hanover Square or just along the street from Bloomingdales in New York's Lexington Avenue. Hard-hatted BHP engineers can be seen on oil drilling rigs in the South China Sea or in a rain-soaked jungle in the Star Mountains of Papua New Guinea.

This is how BHP's basic activities stack up:

STEEL: in BHP's 1982-83 financial year, when the company felt the full crunch of the worsening world oversupply of steel, its steel division lost $144 million and its raw steel output plummeted from 7.2 million tonnes to 5.3 million tonnes. The number of workers was slashed by 1200 to 30,000.

In the latest year — with raw steel output back up to 6 million tonnes, the workforce cut further to 27,300 and profit at better than $100 million — Brian Loton was able to report that BHP had restored its position among its peers as a low-cost steel producer and was aiming to be "the most efficient privately owned steel producer in the world".

As a measure of this, the BHP board approved at the end of May a series of projects bringing authorised capital expenditures at Port Kembla to more than $800 million since the start of the five-year Steel Industry Plan at the beginning of 1984.

The outlays are not aimed at lifting BHP's raw steel capacity, which remains at a trimmed-back level of 6.6 million tonnes at its Port Kembla, Newcastle and Whyalla plants, but to retain and improve on the advantages already gained. The name of the game is productivity.

In the crunch year of 1982-83, only 180 tonnes of raw steel was produced for each steel division employee. In the following year there was an impressive 35 percent recovery to 243 tonnes; a further gain in the latest year has put BHP in sight of its interim target of 300 tonnes by the time the steel plan is completed at the end of 1988. Beyond that there is a target of 350 tonnes for each employee in the 1990s.

PETROLEUM: What will probably stand as the most significant decision made by a BHP board was reached after less than half an hour's deliberation.

After the Rough Range oil discovery in November 1953 shook the conventional wisdom that Australia was geologically far too old to have liquid hydrocarbons, BHP decided that it should look for oil in the Sydney Basin, the source of the coking coal which fed its iron and steel operations at Port Kembla and Newcastle.

The search went on for six years without success. The then chief general manager, Ian McLennan, sought expert advice from a recently retired Esso geologist, Dr Lewis Weeks.

Weeks told McLennan to forget the Sydney Basin but pointed him in the

direction of Bass Strait, one of the roughest stretches of water in the world. The initial cost for surveys to test its potential he estimated at around 1.25 million pounds. McLennan took this bare bones information to his board, asked for the money, and after brief discussion was told, "Let's give Mac a go".

The rest is history. The 50-50 partnership forged with Esso first turned up gas in the Barracouta field in February 1965, and then went on in 1967 to outline the huge Kingfish and Halibut oil fields. The first production oil started flowing in 1969 and now supplies about two-thirds of Australia's needs. It is by far the biggest source of BHP's net earnings.

From an average of 349,000 barrels a day in 1982, Bass Strait's yield had climbed to 443,000 barrels a day in 1984 under the combined influences of better industrial relations, improved pipeline technology and the opening up of export markets. In 1985 it has often exceeded the 500,000 barrel-a-day level and in May it touched the highest point ever of 535,000 barrels.

There are 1.23 billion barrels left in recoverable crude oil and condensate reserves still to be tapped, and Russell Fynmore, executive general manager of BHP Petroleum, is confident that Bass Strait will still be producing oil in the year 2000, although it will start to go into decline by 1988.

There is no hope of finding another Halibut or Kingfish field in Bass Strait, but BHP feels that new frontiers have

Ocean Digger rig drilling at Jabiru 1-A in the Timor sea. BHP's first significant success after its decision to go exploring on its own

been opened up in the past two years by offshore oil discoveries.

Russell Fynmore classifies Jabiru — BHP's first significant success after its decision to go exploring on its own account rather than as a passive partner of Esso — as an important discovery, even though it does not contain the enormous reserves somewhat recklessly predicted by some stockbroking analysts and the Bureau of Mineral Resources.

In Bass Strait, he feels that the intra Latrobe sediments intersected by the Basker, Manta and Tuna 4 wells, although small in comparison to other Gippsland fields, increase the chances for more Bass Strait discoveries.

As it is, BHP will start winning its first Australian oil outside of Bass Strait in mid-July of next year when the half-owned Jabiru 1a discovery well starts pumping 13,000 barrels a day into a tanker alongside.

But the 7500 barrels-a-day BHP share of Jabiru oil which should continue for five or six years falls far short of replacing the potential decline in Bass Strait production later in this decade, and the search continues both on and offshore in Australia and overseas to the tune of about $140 million a year.

BHP is a partner in a British Petroleum-led consortium which has so far unsuccessfully drilled offshore permit areas in the South China Sea and Yellow Sea. It recently joined CSR and other Australian oil explorers in a consortium which will explore and drill over three years in the northern sector of Hainan, the 34,000 square kilometre island in the South China Sea.

As a 25 percent shareholder in Australasian Petroleum, it is taking part in the appraisal drilling of the Juha and Mananda gas-condensate fields in western Papua New Guinea. BHP has negotiated with the national oil company of Morocco for offshore permits on the North Atlantic coast and has secured interests in the British sector of the North Sea.

BHP set up an office in Denver, Colorado, in the mid-1970s as an exploration base in the United States. It took a further big step last November with the $US504 million takeover of Energy Reserves Group, with oil and gas properties in 19 US states as well as Canada.

But the main hydrocarbon development to follow on from Bass Strait will be the $8 billion liquefied petroleum gas phase of the North West Shelf project.

The project started supplying pipeline gas to industrial and domestic consumers in the Perth area a year ago and is now on track for a start in LNG deliveries to Japan in October 1989, following the reshuffles of ownership which have built up the joint BHP/Shell equity in Woodside Petroleum to nearly 80 percent. Added to its direct one-sixth interest, this means that BHP's total equity in the LNG phase is about 23.3 percent.

LNG deliveries to the eight Japanese electricity and gas utilities will take a few years to build up to the target level of six million tonnes a year which, on the basis of present prices of around $US260 billion, would result in annual sales of around $2.4 billion.

MINERALS: BHP started life a century ago as a mineral producer. It retained the role even as an iron and steel producer to supply the raw materials needed for its voracious coke ovens and blast furnaces.

It had thus built up a mineral portfolio with a preponderance of iron ore, coking coal and manganese ore — both for its own use and for export — by the time the OPEC oil shocks of 1973 and 1979 brought an end to the strong growth which had characerised the post-war steel industry.

Last year's huge takeover of Utah assets from General Electric brought BHP another large slice of Bowen Basin coking coal mining operations, recognised as the most efficient and cheapest to run in the world.

But aside from the Utah purchase, which brought an impressive package of non-coal mineral resources, BHP's minerals division has tended in recent years to move into non-traditional areas such as copper, gold, bauxite/alumina, nickel and tin.

Taken on its own, the mineral division — with annual net profits of about $60 million and sales of $800 million — would rank among the top mining houses in Australia. It is likely to have a period of consolidation for a year or two as it assimilates the addition during the 1980s of large projects such as the Riverside and Saxonvale coal mines, the Kooragang coal loader, the Worsley alumina refinery and the Ok Tedi gold/copper project.

The division is spending about $20 million a year in exploring for world-class deposits — particularly gold and copper-lead-zinc — which could lead to projects with a price tag of $US350 million or above.

Its aspirations in the next decade are to find a big gold mine, a large base metal mine and perhaps to "integrate downstream" into processing aluminium, or copper, or both.

These ambitions are not new. BHP had bold plans at the beginning of the 1980s to take a 35 percent equity in a 350,000-tonne aluminium smelter to be built at Lochinvar in the Hunter Valley as a flow-on from its West Australian bauxite interests.

The smelter project was scuttled in April 1982 when first the major partner, Alumax, and then some of the Japanese investors pulled out of the joint venture. BHP is left with an entitlement of 20,000 tonnes of Worsley alumina a year, which at present it is having to sell on a depressed and over-supplied international market, rather than having a captive outlet in a domestic smelter.

Apart from the Utah division's British Columbian copper mine and a huge undeveloped prospect in Chile, BHP has a big stake in copper through its 30 percent interest in the Ok Tedi project, now settling down to its Stage I role as a gold producer after weathering a number of setbacks and mishaps not normally encountered by new mining operations.

> Its aspirations in the next decade are to find a big gold mine, a large base metal mine, and perhaps to "integrate downstream" into processing aluminium, or copper, or both

At the moment Ok Tedi is mining the gold cap of its remote Mount Fubilan deposit in the Star Mountains of western Papua New Guinea. Stage II will see the production of both gold and copper and Stage III the production of copper alone as the gold ore becomes exhausted. The copper will be sold in the form of a concentrate, and there are no plans for any Ok Tedi-related smelting or refining operations.

Apart from the initial Ok Tedi output, gold is represented in BHP's mineral portfolio through its 30 percent interest in the Telfer project in West Australia's Great Sandy Desert (Newmont has the rest); through a small developing operation at Ora Bands, near Kalgoorlie; and potentially through the Boddington project, which is looking at winning gold from the bauxite deposits which support the Worsley alumina refinery.

Other interests include a wholly-owned tin mining operation on Belitung Island in Indonesia and a 44 percent stake in a small nickel mine (WMC has the rest) at Carnilya Hill, north of Kambalda. But the dominant elements in the mineral division are steel-related and export-oriented.

BHP has a 30 percent stake in the Mount newman iron ore joint venture, acts as the project's manager and uses a large part of its iron ore entitlement from the project's 30 million tonne annual output in its Australian steel mills.

It is the sole owner of the 2.3 million-tonne-a-year capacity manganese mining operation at Groote Eylandt in the Gulf of Carpentaria. Part of Groote's output feeds into BHP's ferro-alloy operation near Launceston, Tasmania, but most is exported to markets around the world, including China.

Coal interests are represented by the 58 percent interest in Thiess Dampier Mitsui Bowen Basin coking coal mines, the wholly-owned Saxonvale steaming coal mine in the Hunter Valley and a 30 percent stake in the Kooragang coal loader at the port of Newcastle.

BHP's takeover of Utah, effective from April 2, 1984, put the Big Australian into a new dimension. With a total net cost to BHP of $1.7 billion it was by far the biggest corporate takeover that Australia had seen. More important, it put BHP on the world stage as a formi-

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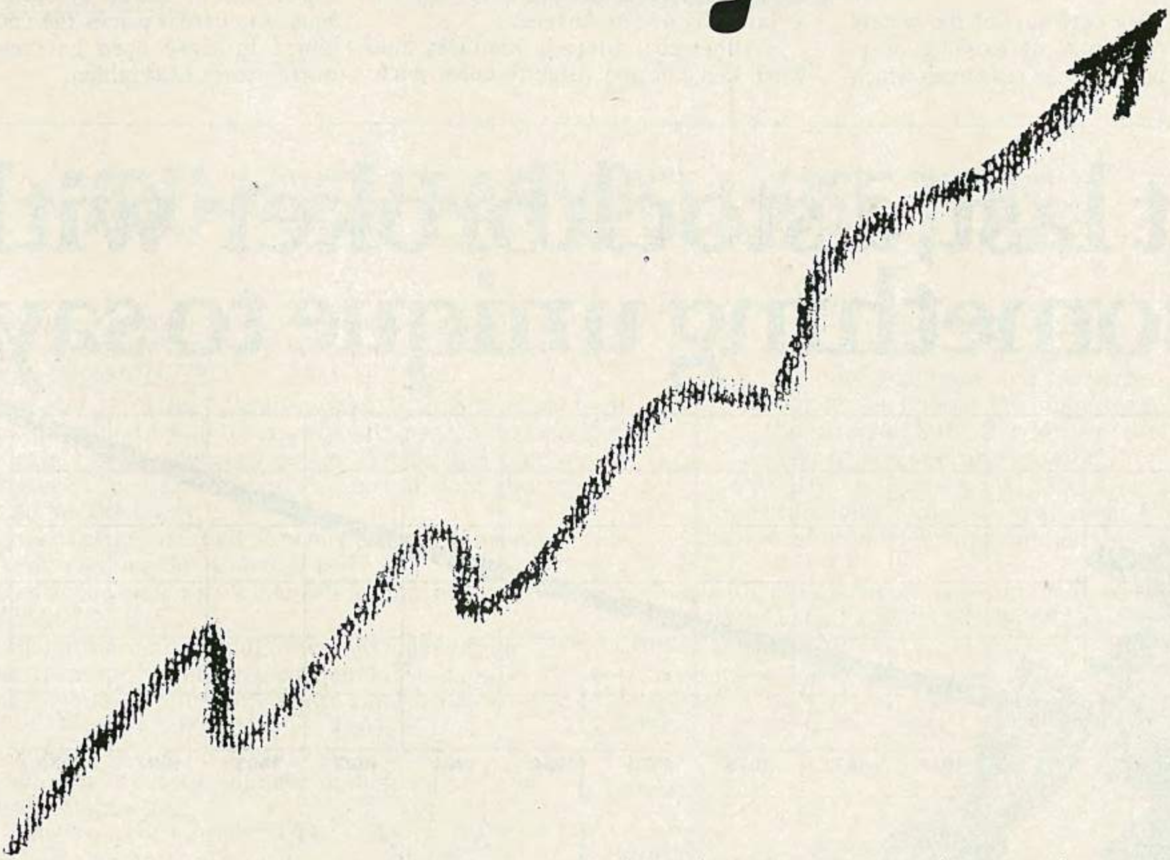

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And get ready to share the next hundred years with us. We promise they'll be ten times better than the first.

BHP Steel International Group

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dable international resource group.

In Australia, the takeover lifted BHP's strategic stake in Central Queensland's Bowen Basin coking coal resources by giving it interests of 35 percent in the Central Queensland Coal Associates joint venture (which includes the Goonyella, Peak Downs, Saraji, Norwich Park and Blackwater open-cut mines and the Harrow Creek trial underground colliery) and 47 percent in the joint venture now owning BHP's previously wholly-owned Gregory mine.

In addition, there was the one-third interest (since lifted to 41.66 percent through the sale of MIM's share in June) in the Mount Goldsworthy iron ore project in the Pilbara.

In the 15 months it took to stitch together the purchase of Utah from General Electric, public attention tended to focus on the Bowen Basin coking coal mines which had formed the conspicuously successful base for Utah Development's emergence as Australia's biggest and most profitable coal exporter.

But that was only part of the widely scattered collection of existing operations and undeveloped resources which Utah had assembled in the Americas and beyond. The main components of the package are:

☐ The Island Copper copper/ /molybdenum open-cut mine set among a snow-dusted spruce and hemlock forest in the northern part of British Columbia's Vancouver Island.

Besides being a low-cost producer with an annual output of about 60,000 tonnes of copper in concentrate sold to long-term customers in Japan and Taiwan, Island Copper has other unusual attributes. Its open-pit mine is within half a kilometre of its shipping port on Rupert Inlet, which boasts some of the best coho salmon fishing in Canada.

It is also the only BHP operation to have a problem with marauding bears, which come into the camp in search of food and knock over garbage bins.

☐ The Navajo and San Juan steaming coal mines in the dun-colored mesa country of north-west New Mexico. They have a combined output of 12 million tonnes and feed nearby coal-fired power stations supplying electricity to markets as far away as Los Angeles.

☐ Other coal mines in Kentucky and West Virginia and Atlantic coast port-loading facilities.

☐ A 49 percent interest in the Samarco iron pellet project in the Brazilian state of Minas Gerais. Like Tasmania's Savage River project, Samarco's iron ore is mined in the hinterland, pulverised and made into a slurry, then carried by a 395-kilometre pipeline to a pellet plant at the South Atlantic port of Point Ubu.

☐ A man-made island between Florida and the Bahamas, used as a base for dredging aragonite from the seabed. Aragonite, a high grade calcium carbonate, is used in the cement, glass and agricultural lime industries.

☐ A half interest in the huge Escondida ("the Hidden One") copper prospect discovered in 1981 by the Utah/-Getty Oil partnership high in the bare Andean foothills behind the Chilean nitrate port of Antofagasta.

Claimed to be the biggest undeveloped copper deposit in the world, Escondida has 1.8 billion tonnes, of which 547 million tonnes averaging 2.16 percent copper can be mined by open-cut methods. At current prices the copper contained in these open cut reserves is worth nearly $A24 billion.

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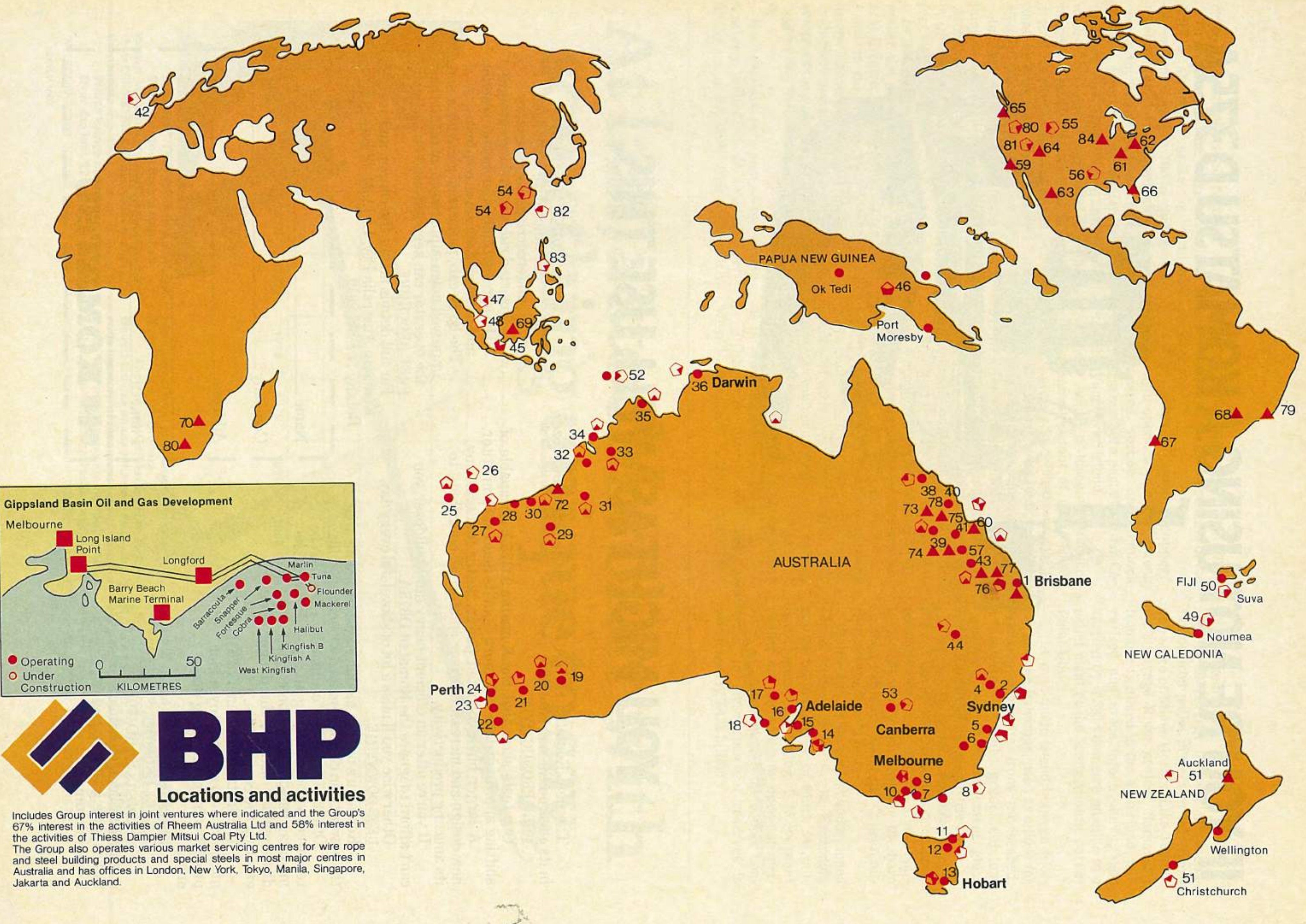


BHP

Locations and activities

Includes Group interest in joint ventures where indicated and the Group's 67% interest in the activities of Rheem Australia Ltd and 58% interest in the activities of Thiess Dampier Mitsui Coal Pty Ltd.
The Group also operates various market servicing centres for wire rope and steel building products and special steels in most major centres in Australia and has offices in London, New York, Tokyo, Manila, Singapore, Jakarta and Auckland.

BHP's world network

Map shows the spread of BHP's activities in 84 locations stretching from a wire products plant in Hobart to oil exploration in the North Sea

Minerals division

Minerals division activities principally relate to the exploration, development and production of minerals for sale outside the group including iron ore, coking coal, energy coal, manganese ore, alumina and, to a lesser extent, ferro alloys, gold, nickel and tin.

Australia

2. Newcastle
Coal loading facilities under construction. Group interest 30%.

4. Saxonvale
Open cut energy coal mine.

11. Bell Bay
Ferro alloy plant.

19. Carnilya Hill
Nickel mine. Group interest 44%. Joint venture with Western Mining Corporation.

20. Ora Banda
Gold exploration.

22. Worsley
Bauxite deposits and alumina refinery. Group interest 20%. Other participants: Reynold Australia Alumina Ltd. 40%; The Shell Company of Australia Ltd 30%; Kobe Alumina Associates (Australia) Pty Ltd 10%.

27. Deepdale
Iron ore deposits and a 50% interest in rail and shipping facilities at Cape Lambert, CRRIA 50%.

29. Newman
Iron ore mine, beneficiation plant and a 425 km iron ore railroad to Port Hedland. Group interest 30%. Joint venture with subsidiaries of CSR Ltd. AMAX Inc, Mitsui & Co Ltd, C. Itoh and Co Ltd, Selection Trust Ltd.

30. Port Hedland
Iron ore crushing, screening and shipping facilities. Group interest 30%. (see 29).

31. Telfer
Open cut gold mine, treatment plant. Group interest 30%. Joint venture with Newmont Holdings Pty Ltd.

33. Fitzroy Crossing
Lead-zinc exploration Group interest 50%. Joint venture with The Shell Company of Aust Ltd, 38.5% and Trend Exploration Pty Ltd 11.5%.

34. Yampi Sound
Iron ore mines and shipping facilities at Cockatoo and Koolan islands.

35. Forrest River
Diamond exploration.

37. Groote Eylandt
Manganese ore mines, concentrator and shipping facilities.

39. Thalanga
Copper-lead-zinc exploration. Group interest 39%. Joint venture with Penarroya (Aust) Pty Ltd, 50% and E.Z. Industries, 11%.

41. Riverside
Coking coal development.

43. Moura
Open cut and underground coking and energy coal mines.

International

45. Belitung Island
Tin mine and concentrator.

46. Papua New Guinea
Ok Tedi gold and copper mine. Group interest 30% in Ok Tedi Mining Ltd. Other shareholders: State of Papua New Guinea 20%; Amoco Minerals Company 30%; Consortium of German companies 20%.

Manufacturing, engineering and research

Australian Wire Industries Pty Ltd group — steel wire and wire products; mining and engineering equipment. Commonwealth Steel Co Ltd — railway rolling stock components; grinding media; special alloy and tool sheds; stainless steel flat products. Australian Industrial Refractories Ltd — industrial refractories. Rheem Australia Ltd — water heaters; steel, plastic and paper-based containers; woven synthetic fabrics; soft drinks. BHP Engineering — engineering, construction and project management for group and client projects. Corporate Research — research and development of new technology for the group.

Manufacturing: Australia

1. Brisbane
Stainless steel casks, steel drums, tanks and concrete transit mixer, flexible packaging plants and steel foundry.

2. Newcastle
Wire, wire rope, special steels, railway products, grinding media, forgings and casting, cast steel abrasives, mining products, refractories, steel drum reconditioning.

5. Sydney
Wire and fibre steel, railway bogie assembly, water heaters, steel drums, light poles, moulded containers, flexible packaging and arc and plasma spraying plants.

6. Port Kembla/ Wollongong
Stainless steel rolling mill, mining products and refractories plants.

9. Melbourne
Wire products, steel drums, flexible packaging and plastic moulded containers.

10. Geelong
Wire and wire rope and tyre cord plants.

12. Launceston
Steel drums plant.

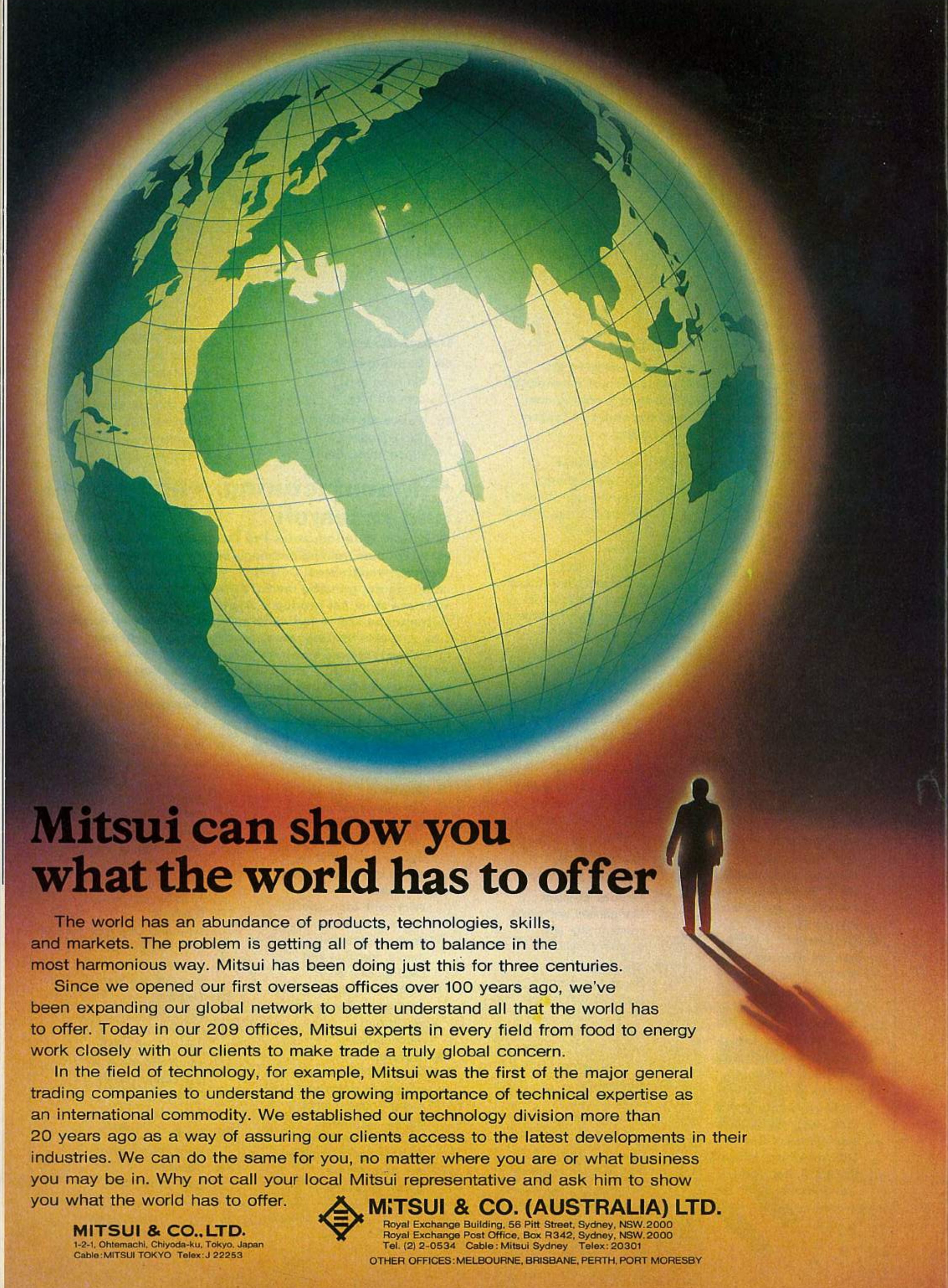
13. Hobart
Wire products plant.

14. Adelaide
Steel drums, sheet-metal and steel fabrication plants.

23. Kwinana
Wire plant.

24. Perth
Steel drums plant.

38. Cairns
Soft drink plant.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40. **Townsville**
Steel fabrication and soft drink plants.

International

45. **Jakarta**
Steel drums and reinforcing mesh plants.

51. **Auckland**
Steel drums and water heater plants.
Wellington
Steel drums and moulded containers plants.

51. **Christchurch**
Steel fabrication and fence post plants.

82. **Taiwan**
Tungsten
Carbide products.

Engineering

1. **Brisbane**
Engineering procurement and project management.

5. **Sydney**
Engineering, procurement and project management.

6. **Port Kembla/ Wollongong**
Engineering survey.

24. **Perth**
Engineering, procurement and project management.

Corporate research

2. **Newcastle**
Research laboratories.

9. **Melbourne**
Research laboratories.

24. **Perth**
Orbital Engine Co Pty Ltd.

Petroleum division

The oil and gas division conducts the group's activities in hydrocarbon exploration, development and production in Australia and overseas through Hematite Petroleum Pty Ltd. The division is also responsible for the group's petrochemical investments.

Australia

8. **Gippsland Basin, Bass Strait**
Petroleum exploration and production, onshore processing and distribution facilities at Longford and Long Island Point; fabrication and servicing facilities at Barry Beach (refer to map on page 56). Group interest 50%.

9. **Melbourne**
Styrene monomer plant, Group interest 50%

25. **Exmouth Plateau and Carnarvon Basin**
Petroleum exploration. Group interest 50%.

26. **North West Shelf**
Offshore petroleum exploration and the establishment of off-shore production facilities. Overall group interest 19%.

28. **Withnell Bay**
Establishment of natural gas production and distribution facilities.
Overall group interest 19%.

32. **Canning Basin**
Petroleum exploration. Group interest 22.5%.

44. **Surat Basin**
Petroleum exploration. Group interest 40%, 55% and 75% in three areas.

52. **Timor Sea**
Petroleum exploration. Group interest 50% in one permit, varying interests from 19.25% to 32.3545% in four sub-areas of second permit.

53. **Darling Basin**
Petroleum exploration
Group interest 50%.

International

45. **Indonesia**
Petroleum exploration (offshore). Group interest 20%.

46. Papua New Guinea
Petroleum exploration. Group interest 25%

55. Denver

56. Houston
Petroleum exploration and minor production. Group interest up to 25% in various areas.

42. North Sea
Petroleum exploration Group interest 17%.

54. China
Petroleum exploration (offshore). Group interest 20%.

▲ UTAH division

The Utah division, which is based in San Francisco, conducts mining operations, including exploration and new developments, through Utah International Inc and subsidiaries. Activities and interests, mainly acquired from General Electric under purchase agreements completed in April 1984, are in nine countries — Australia, the Bahamas, Brazil, Canada, Chile, Indonesia, New Zealand, South Africa and the United States.

1. Brisbane
Australian head office (Utah Development).

57. Gregory
Open cut coal mine (47% owned).

59. San Francisco
Head office and management, Utah International Inc.

60. Hay Point
Port and coal loaders 35% owned.

61. Kentucky
Coal mines.

62. West virginia
Coal mines and port.

63. New Mexico
Open cut coal mines Navajo, San Juan and (under development) La Plata.

64. Nevada
Tungsten mine and chemical plant complex (20% owned), on care-and-maintenance basis.

65. Port Hardy
Island Copper Mine. (open cut).

66. Ocean Cay
Offshore aragonite production (dredging).

67. Escondida
Open cut copper prospect (50% owned).

68. Germano
Samarco iron ore mine (49% owned).

69. Kallimantan
Energy coal prospect.

70. Delmas
Energy coal prospect (70% owned).

71. Waipipi
Iron Sands dredging operation (75% owned).

72. Mt Goldsworth
Iron ore prospect (33.3% owned).

73. Goonyella
Open cut coal mine (35% owned).

74. Peak Downs
Open cut coal mine (35% owned).

75. Saraji
Open cut coal mine (35% owned).

76. Norwich Park
Open cut coal mine (35% owned).

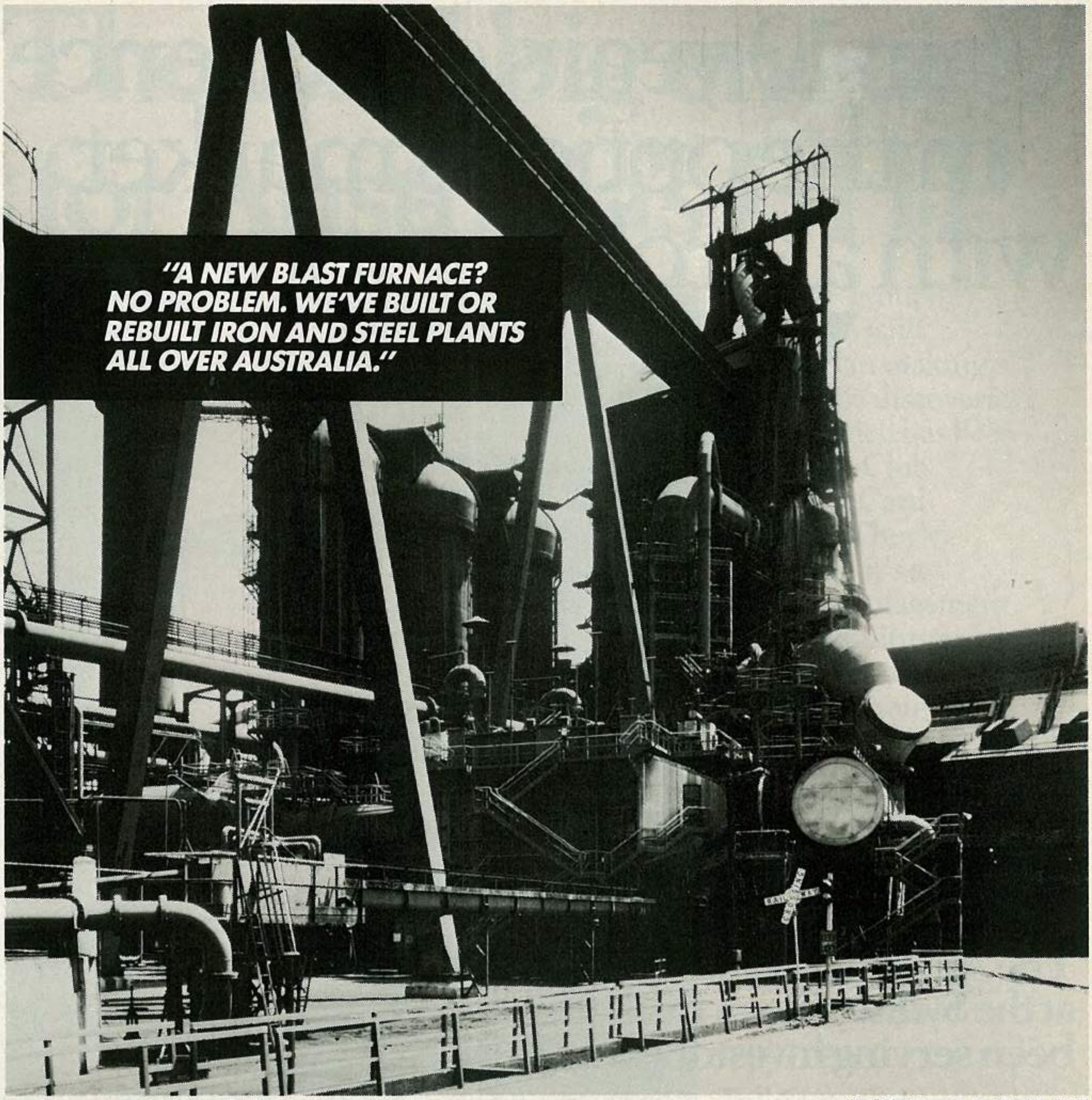
77. Blackwater
Open cut coal mining.

78. Harrow Creek
Underground trial colliery (35% owned).

79. Point Ulba
Pellet plant and port Samarco project (49% owned).

80. Orange Free State
Gold Prospect (30%).

84. Wichita
Head Office and Management Energy Reserves Group (Petroleum).



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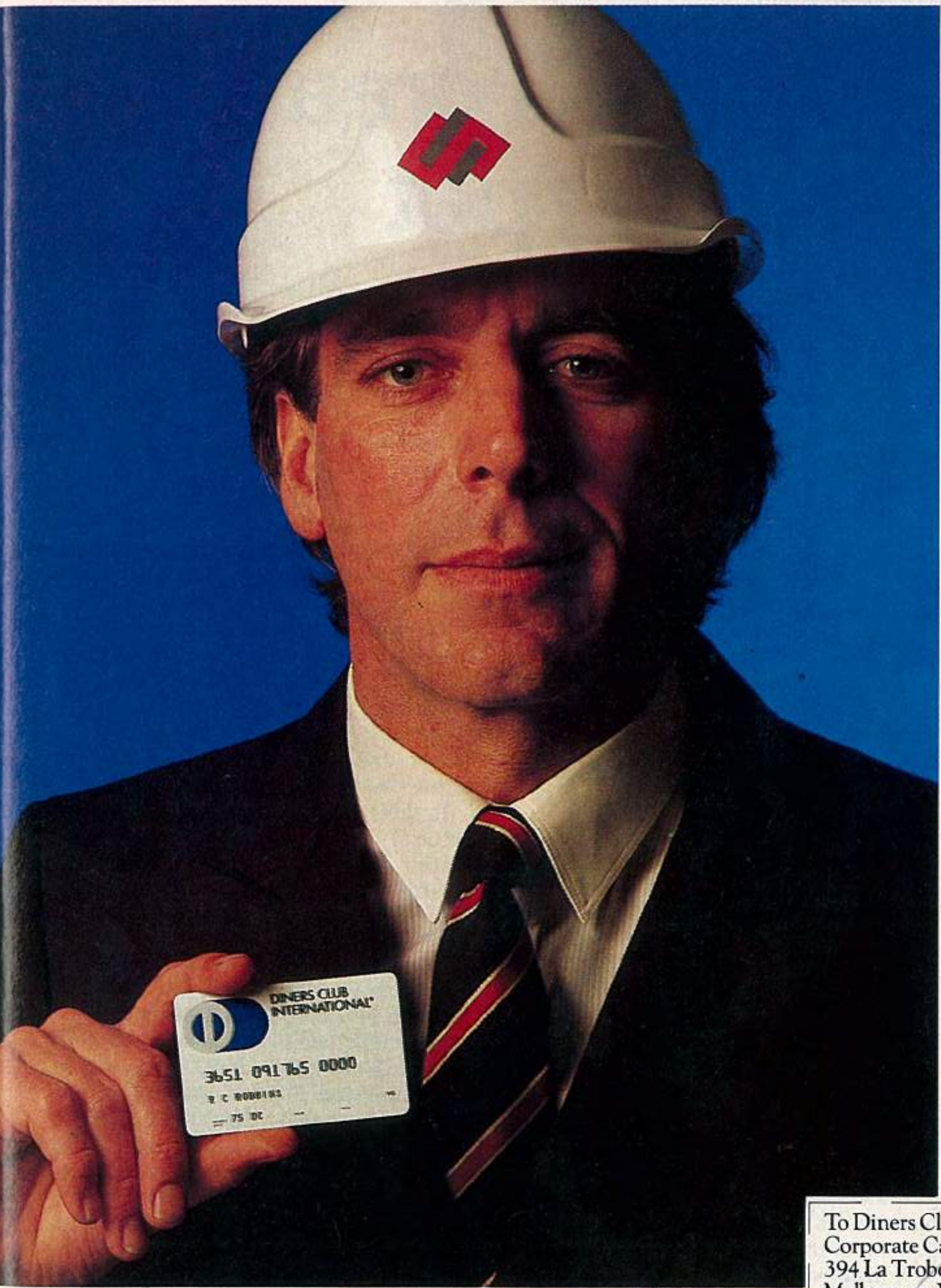

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Port Kembla: A great big smelting pot

From steel furnaces to Hans Heysen paintings, Port Kembla owes its success to the dedication of its migrant workers. Paddy Ginnane outlines the unique blend of races which has given the steel works a character all of its own.

Port Kembla steelworkers called him Bob because it's easier to say than Bronius Sredersas, his full name, and anyway it is working class tradition to Anglicise the unpronouncable, to familiarise the foreign. He didn't mind.

A Lithuanian, he had come as an ordinary laborer, one of hundreds of displaced people from the Baltic countries who arrived in Australia after the war and were directed to work in heavy industry.

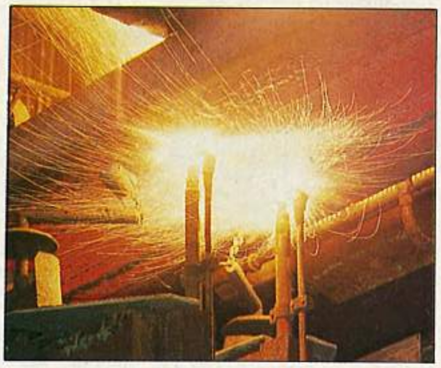
Wollongong can never forget Bronius Sredersas because after years of labor, and before he died, he virtually gave the city an art gallery.

An art purchase committee had been raising funds for years, buying paintings, storing them at the town hall, and regularly pleading with council and the state government for the money to establish a Wollongong Gallery.

Bob Srederas — he remains Bob to the Illawarra community — short circuited the whole process in July 1976 by arriving at the town hall with a priceless collection of 31 pieces of antique china and 79 paintings by top artists such as Hans Heysen, Ernst Buckmaster, Norman Lindsay, A.H. Fullwood and Will Ashton.

Each piece and each painting he selected to his own taste, and paid for with his earnings as a steelwork's laborer. Often he came off night shift, rode the train to Sydney studying the catalogues as it rolled up the coast, and rode home that night with a Sid Long or a Lindsay resting on his lap, wrapped in brown paper.

He never married and lived alone in



an unpainted fibro house in Cringila, the city's "Little Europe", a dusty, noisy residential hill whose streets slope down to the steelwork's fence, and where his neighbors kept chooks or grew grapes or, in their poorest and worst postwar years, kept the beds warm by sharing them one after the other as they came off successive shifts.

Bob Sredersas' story is probably the most gentle and beautiful of all the folklore that migrants have established in the steel town. He lived to see Premier Neville Wran in 1978 open a Wollongong Municipal Gallery, which recognised his gift by naming a Bob Sredersas gallery to house it.

Wollongong and neighboring Shellharbour, and to a lesser extent Kiama, have expanded with the steelworks, civic growth inevitably chasing industrial growth. The works could not have flourished as it did without a stream of newcomers, many of them non-English speakers, who poured into the city to toil around the mills and furnaces of Port Kembla. Wollongong was New South Wales in miniature. The difference was that the proportion of overseas-born was larger than in Newcastle or Sydney.

BHP-Australian Iron and Steel, and to a lesser extent industries such as John Lysaght, Commonwealth Steel, Metal Manufacturers and the Electrolytic Refining and Smelting Company, were the magnets that drew people. In the fifties and sixties there seemed to be almost always — but not quite always — more jobs than people to fill them.

In their way they created a social and cultural furnace which only now is being tapped, a human resource which even yet has had limited appreciation of its worth.

The most tragic victims of mass migration on this scale were, first of all, men without women, and later, women without scope, non-English speakers, who acompanied their husbands or families to Wollongong and languished at home because there were no jobs for them, or no child-care centres they could afford, or few people "out there" who understood their predicament or recognised that they existed.

The Italian-born secretary of the Port Kembla branch of the Federated Ironworkers Association, Nando Lelli, landed in Australia aged 25, unable to speak a word of English. He picked grapes in Mildura and found casual jobs in Sydney before taking work three years later at Port Kembla, first as a rigger with FPT, an Italian-based company, and later with AI&S. "The first

The expansion of the steelworks at Port Kembla owes a lot to the stream of migrants attracted to Wollongong by the promise of jobs

two years were the most frustrating of my life," he reflects. "I longed to speak to people but could not get the words out."

Lelli, who can now address mass meetings at Wollongong Showgrounds and represent the South Coast Labor Council on the ACTU's Workers' Migrant Committee, meticulously wrote down the sound of the words he heard at work, and insisted on doing his own shopping.

He recalls forgetting the word for egg when shopping, and in desperation, as none were in sight, imitating the cackle of a hen to let the shopkeeper know what he needed. He never forgot the word "egg" again.

On-the-job communication often was as crude. All the brickies' laborers were Italian, and although Lelli's English was limited, he acted as their interpreter. "The company's philosophy was that it was safer to keep together those able to communicate. But the real need was for English language classes."

On-the-job English classes are now available. Nando Lelli wants to see the system expanded. But at least the principle has been established. A Labor Council Ethnic Liaison Project, financed for one year by a Commonwealth grant, identified lack of English language instruction as great a need for migrants in 1985 as ever it was 20 years ago. It obtained a watershed decision by winning on-the-job English classes for outworkers — women who work at home for the clothing trade — as an award right.

The decision of federal and state governments in the early 1970s to switch from assimilation or integration to a multi-cultural Australia is having a profound effect for non-English speakers entering school.

Ken Jones, who oversees migrant education in Illawarra, says the new approach allows students to continue in their own culture and language. In Illawarra this has meant employing specialists in teaching English as a second language, hiring bilingual teachers who instruct in English and in the students' mother tongue, and establishing a Saturday school offering instruction in 30 languages for those preparing for the School and Higher School Certificate.

The education department employs ethnic aides to improve communication between schools and parents, and it uses up to 20 languages in messages sent home with the pupils so that everyone knows what is happening.

"We have one primary school in which 94 percent of pupils are from non-English speaking backgrounds," Ken Jones says. He estimates that half the schoolchildren in Illawarra come from non-English speaking backgrounds, but he notes: "We have had little overt racism in the schools. In fact the good

thing is that it has broadened Australian attitudes, too, Jones says.

Yugoslavs now make up Illawarra's single biggest ethnic group, and their numerical strength is reflected in the AI&S workforce. Of slightly more than 13,000 employees late last year, 6562 were born overseas. Of these 2459 were from Yugoslavia. In contrast about 30 percent of BHP's total professional and managerial staff are overseas born.

At AI&S the next largest single group are British born (1099). Then follows Italian (671), Portuguese (333) and Spanish (242). The other main groups are German (210), Greek (201), Turkish (180), Vietnamese (158), Maltese (148), Polish (143) and Chileans (131). There are 53 other national groups.

Little wonder that Wollongong City Library's community file lists more than 100 national associations, clubs and church groups; little wonder that English is just another language in Crown Street, the city's main thoroughfare, or that hardly a week passes without some national festivity being observed.

The cuisine and custom of Europe and Asia are rubbing off on Wollongong, and those who imagine a steelworks town as a dull place, shrouded in dust or populated by workers dressed in hard hats and blue singlets, should rearrange their attitudes at the elegant Northbeach International overlooking a splendid view of the northern Illawarra seascape. Its owners are a Lebanese business family.

The long-settled Italian community has its own club, as have the Germans, Ukranians, Spanish, Portuguese and Dutch. A dozen restaurants offer national fare, from Mexican to Vietnamese.

Like Ulladulla, another coastal settlement with long Italian links, Wollongong has a Blessing of the Fleet each January. But it is more than an Italian festival; it has become an international day of folk dancing and singing, with migrant field kitchens set up on Flagstaff Hill, overlooking the convict-built harbor, pouring out delicacies.

Christmas, Easter — 'Christian Orthodox' — the Epiphany or Feast of John the Baptist, each is remembered by overseas communities who brought with them religious beliefs and old customs. In Wollongong the bells toll and the ceremonies often spill out on the street, as they would in Seville or Rome.

Among the more colorful is the Epiphany tradition which comes from Yugoslavia. In that country a cross is cut from ice from a frozen lake or river, and tossed into the freezing water to be retrieved by the young men of the village or town.

"It is a pagan tradition which has been christianised to signify the turning of the season towards spring," says Rudi Dezelin, who has seen it observed in his homeland and in the more pleasant January weather of Australia. Here a wooden cross is carried through the streets to Wollongong harbor, thrown in the sea by the priest, and retrieved by young men from his congregation.

Even more colorful is the Slovenian wedding ceremony in which the couple is driven through the streets in a horse-drawn coach, the bride kidnapped and ransomed and finally wed at the town hall.

Rudi Dezelin, who once presided at a joint ceremony for three couples, had to conduct it in seven languages, Italian, German and Spanish for the bridegrooms, Serbian, Macedonian and Croatian for the brides, and English for the biggest audience of all. ▪

百壽

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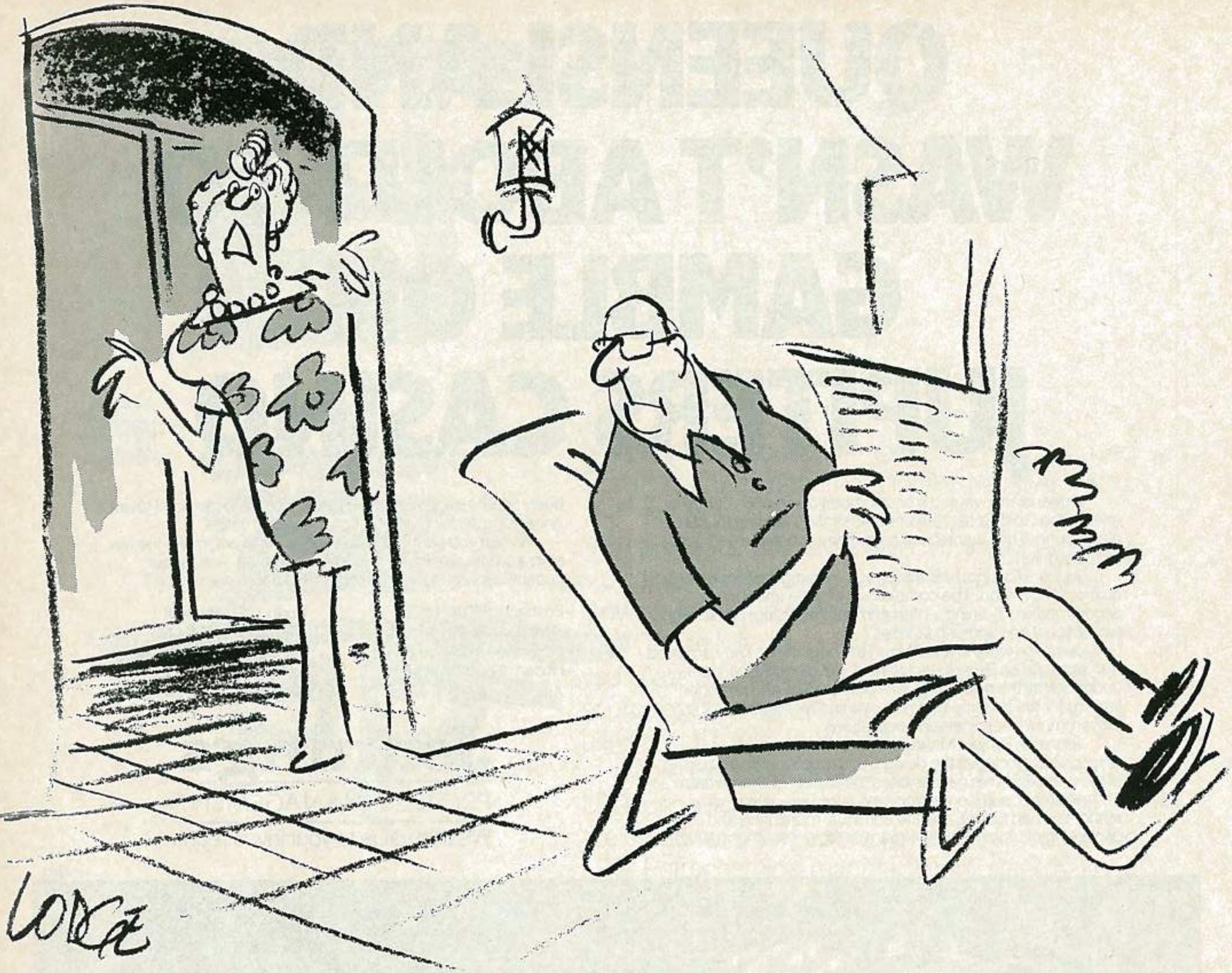

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In search of management excellence

As BHP gears up for an exciting era of overseas expansion, subtle changes are being introduced to cope with the moves. Noel Bushnell goes behind the scenes and explains the new management structure designed to take the company into the 21st century

Deep in the body of BHP changes are going on which, in a year or two, will fundamentally alter the nature of the company that used to be called the Big Australian. Four working parties are planning where the nuts and bolts go in a group reorganisation that the board is determined to make happen after more than a year of study.

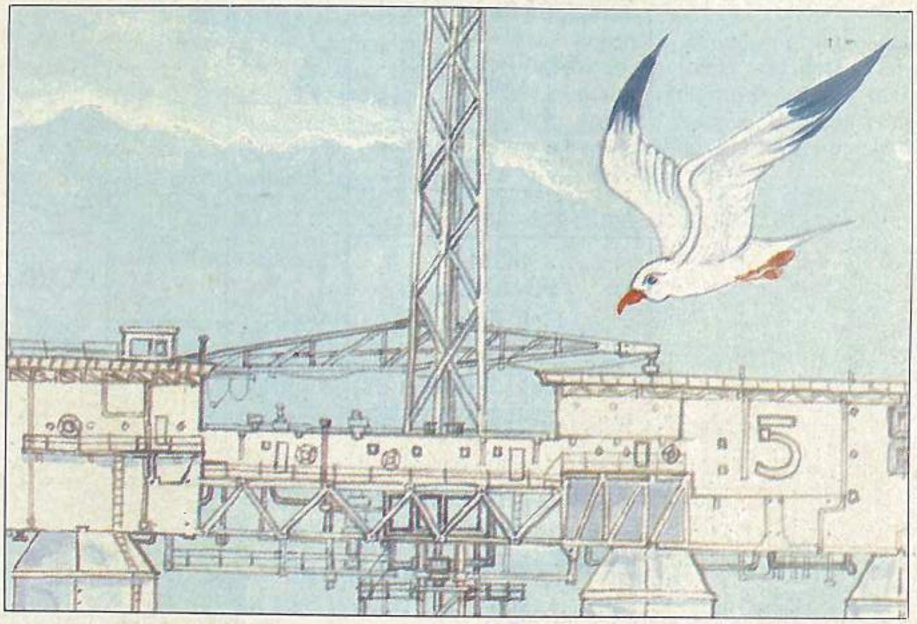
Managing director Brian Loton made the future official early in May with a detailed explanation of what was intended and how that intention had come about.

The change stems from some basic rethinking within the top echelon of BHP. The result can be boiled down to two realisations: first, that BHP was a resources company; second, that it needed to break out of Australia. While these might seem a couple of simple conclusions unworthy of the brainpower involved, nevertheless BHP had one way or another worked itself into a position of not being totally clear what it was about.

Many forces have influenced what has happened since, but surely the most powerful catalyst in getting BHP's own bureaucracy even to think about change was the steel crisis.

Steel to BHP was like horses to cavalry. It was unthinkable that one could go on without the other. But with oil profits pouring in and steel plants costing more and more to maintain, the truth became apparent: BHP could shed steel and, far from drastically weakening the body, could actually strengthen it.

Almost simultaneously came the opportunity to acquire Utah International, and this quickly crystallised the notion of going international. If steel had



forced BHP to think about change, Utah made it inevitable.

In one bound BHP was an international force, in coal, iron ore and copper. It took no great feat of imagination after that to conclude that it also needed to be international in oil, a thought that led to buying Energy Reserves Group of the United States. BHP eyes are now irretrievably turned outward. BHP's second century will be played in the international arena.

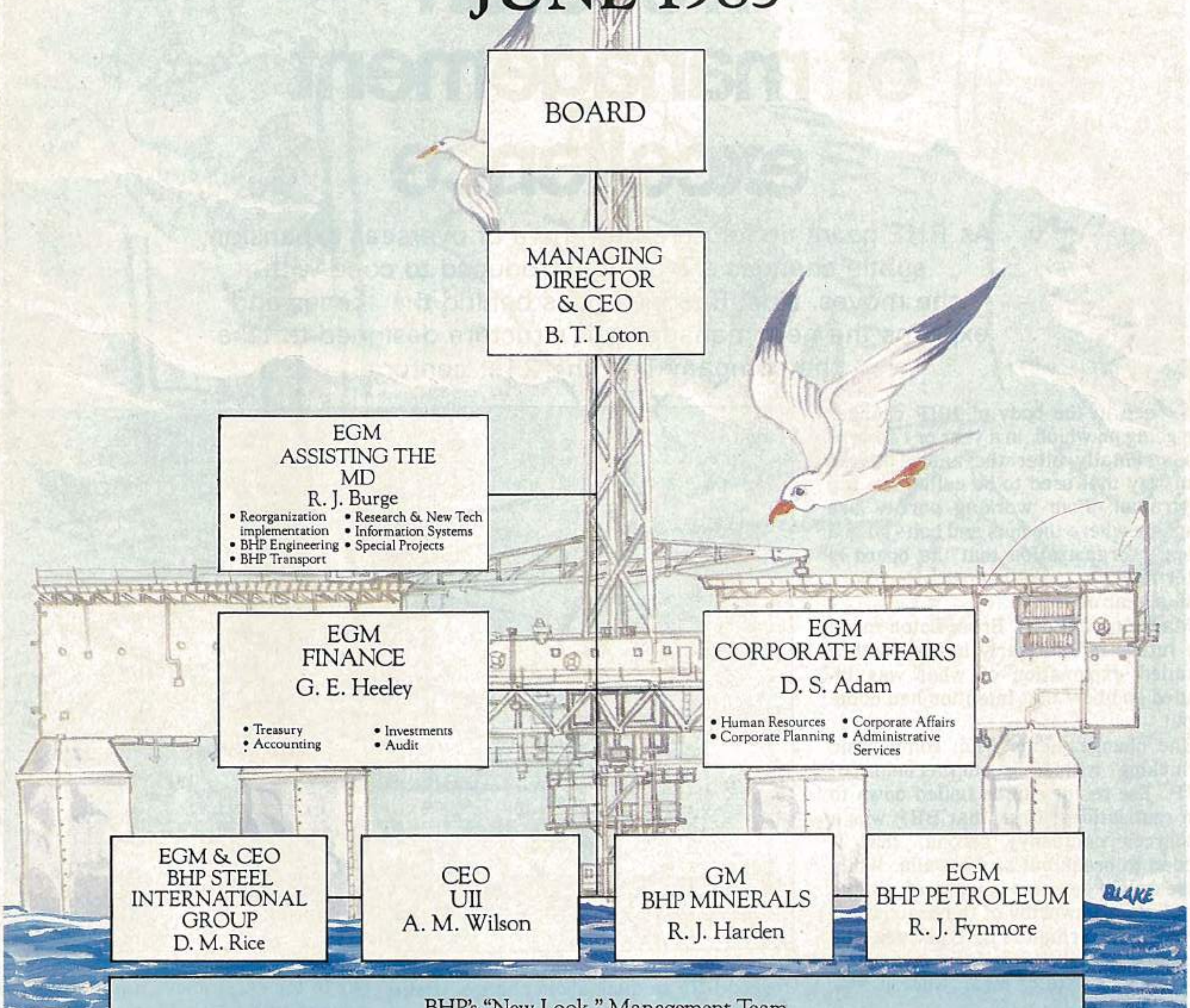
Underlying this wave of history approach are a couple of personalities, those of Loton and the man who would be BHP's nemesis, Robert Holmes a Court.

Loton, on the retirement of Sir James McNeill as chairman, found himself as the first chief executive without someone in the chair above him. More bucks stopped on his desk. If only because even he could not work around the clock, some kind of power devolution became necessary.

Holmes a Court, with his audacious takeover offers, is given the credit in many quarters of being the flea that stirred the elephant. The implication is that without the threat of takeover BHP would have carried on pretty much the way it had for 100 years.

Up on the penthouse floors of the big steel and glass tower that houses BHP's headquarters, it is acknowledged that Holmes a Court did divert attention to matters never before considered with much sense of priority: the share price, the share register and shareholder needs. But it is strongly denied that any

BHP ORGANISATION STRUCTURE JUNE 1985



BHP's "New Look" Management Team

B.T. (Brian) Loton, 55 – Managing director and chief executive officer. Appointed chief general manager in 1977, managing director in 1982 and has been the group's chief executive officer since July 1984.

R. J. (Russell) Burge, 60 – Executive general manager assisting the managing director, with responsibility to assist the managing director in the implementation of the reorganisation and to oversee the technology-based corporate services. Has been executive general manager minerals division since 1978.

D. S. (David) Adam, 54 – Executive general manager corporate affairs. Has been an executive director of BHP and subsidiaries since 1977. New responsibilities include corporate planning. The personnel function has been renamed 'Human Resources' to reflect the emphasis on this function.

G. E. (Geoff) Heeley, 49 – Executive general manager finance since May 1984. Has responsibility for treasury, accounting, audit and the investment portfolio, including most subsidiaries.

D. M. (David) Rice, 57 – Executive general manager and chief executive officer, BHP Steel International group. New responsibilities are the coated products and wire products divisions: also expanded NSW coal operations. Has been Executive general manager steel division since 1982.

A. M. (Bud) Wilson, 62 – Chairman and chief executive officer of Utah International Inc since 1979 and a director of BHP and subsidiaries since July 1984. He jointly heads the task force unifying the Utah and minerals operations.

R. J. (Rod) Harden, 50 – General manager BHP Minerals. Has been general manager manganese (previously associated minerals), minerals division, since 1981. He is responsible for minerals division operations and jointly leads the task force working on minerals and Utah amalgamation.

R. J. (Russell) Fynmore, 51 – Executive general manager BHP Petroleum. Has been executive general manager petroleum division since 1982. Charged with restating BHP's oil and gas objectives and strategy.

J. F. H. (John) Clark, 52 – General manager human resources. R. G. Wallace, general manager personnel, who retires this year, will assist in the establishment of the new organisation. Mr. Clark has been general manager Port Kembla since 1982.

of the more fundamental changes that have been set in train stem from a need to keep the West Australian at bay.

Brian Loton said in announcing the structural changes that they were the culmination of a process started early in 1983 and first given direction by a senior management seminar which reviewed research data and set strategic goals. Working parties and management review committees worked in parallel streams until their thoughts were pulled together by a meeting of management and directors late in 1984.

"Along the way, the process was influenced by the acquisitions of Utah and Energy Reserves Group and some external factors," Loton said, understating just a mite the background to these epoch-making manoeuvres.

The changes reorganise BHP into four basic groups — steel, oil, minerals and Utah — under a headquarters group, dubbed the corporate centre. It is planned to refine this further by merging the minerals division and Utah.

The new steel division, called BHP Steel International, will group together all the disparate elements of the steel operation, including John Lysaght. BHP Petroleum International will leave the current oil division virtually as is but with the question to be answered about what to do with ERG, which at present is part of Utah.

The top of the group structure as announced has at the centre Brian Loton with executive general manager finance Geoff Heeley and EGM corporate affairs David Adam.

> The changes reorganise BHP into four basic groups — steel, oil, minerals and Utah — under a headquarters group, dubbed the corporate centre

In a new post as EGM assisting Loton is the former minerals division chief, Russell Burge, whose task it is to oversee the reorganisation as well as BHP engineering, BHP transport, research, information systems and special projects. David Rice, in an extension of his previous role, is EGM and chief executive officer of BHP Steel International. Bud Wilson remains Utah chief executive officer and Rod Harden has been promoted to general manager of the minerals division. Russell Fynmore is EGM of the oil division. All four report to Loton.

Each business group will be expected to perform as a separate profit centre. Each will have its own budget, and chief executives will have much higher discretionary capital spending limits. The aim is to capture the benefits of shorter lines of command — quicker decisions, less bureaucracy — and an entrepreneurial (that is, profit-conscious) spirit engendered by the greater responsibility.

New activities, developed internally or acquired, can be added more easily to the new structure. Not mentioned, but equally possible, is the ease with which parts can be dropped.

Working parties have been formed to implement the changes in four streams: the consolidation of BHP Petroleum world-wide and rationalising Utah and BHP Minerals.

The corporate centre and petroleum appear to be relatively straightforward exercises and steel, while a large task, is also without a great deal of complication. Steel plans, in fact, appear to be fairly well developed.

Divisional structure has been put in place under David Rice. The man in charge of the consolidation is Peter Laver, former operations general manager. Also reporting to Rice is general manager finance Alan Castleman.

Operations are in seven groups — collieries (general manager Rob Chenery), slab and plate products (Jerry Ellis), coated products (John Lysaght), rod and bar products (John Risby), wire products (Alan Mewing), long products (Ron McNeilly) and trading services (Bill Farrands).

Three of those general managers are of interest: McNeilly and Ellis are widely seen as marked for higher things, and Chenery is only 39 years old.

The appointment last year of McNeilly, 41, as general manager Whyalla steel works was treated as a move of great significance. Not only was he young but he came to the job out of marketing, rather than operations.

Ellis, 47, had a long career through Australian Wire Industries before going into corporate planning. As general manager for flat products he takes over the giant Port Kembla works.

Chenery has already had four years as assistant general manager of Newcastle steel works. His new job puts him in charge of the coal mines feeding the steel works, the Kooragang coal loader in Newcastle and the Saxonvale steaming coal mine, which has been transferred from the minerals division. So the steel reorganisation looks merely a matter of going ahead on the established lines. Merging minerals and Utah is another thing altogether.

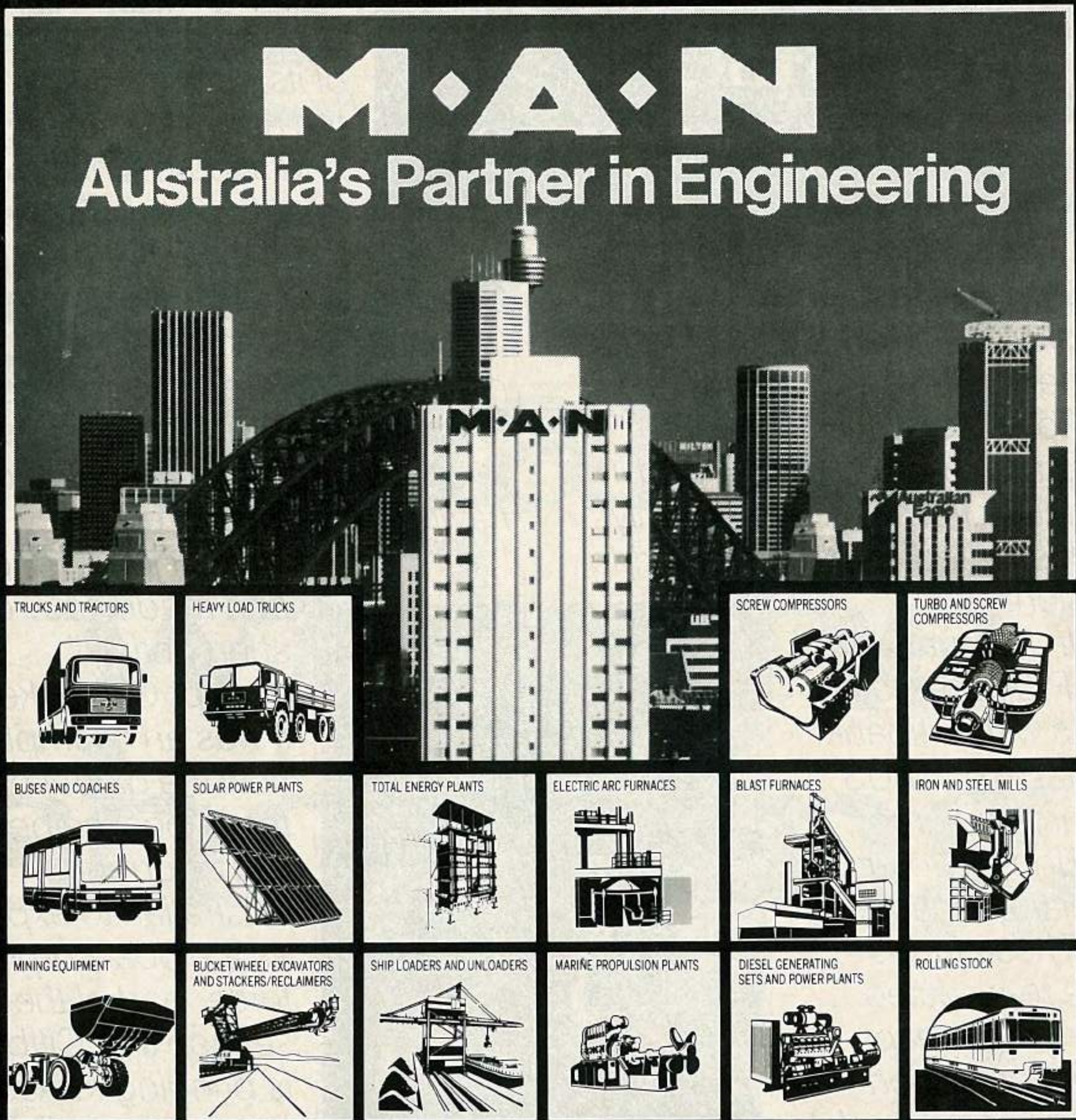
Utah has a fully developed international marketing network, whereas BHP's minerals division has tended to work through agents.

Harden (minerals) and Wilson (Utah) are heading a task force to report to Loton on things as basic as what needs to be done and how it might be done. Everything about this exercise is in the realm of speculation at present, High-placed people at BHP are talking in terms of "if" rather than "when" even though they do say they would be surprised if it does not come off.

Not the least of the problems to be faced is that of melding two quite disparate social and corporate cultures, one American and the other Australian, across a wide geographical spread. However, there has been a small test run in the amalgamation early on of exploration efforts and, whatever happens with the wider merger, it is certain that Utah will take over the minerals division's marketing efforts.

Utah has a fully developed international marketing network, whereas BHPs minerals division has tended to work through agents. More than that, Utah has a high-powered collection of American executives which it would be foolish to waste by insisting that the combined division be controlled from Melbourne. Utah also has, uniquely among the BHP divisions, a board of its own, comprising some equally high-powered individuals.

With the caveat that anything can happen (including not happen at all) in this proposal, it seems obvious at least that Utah/minerals will be San Francisco-based. That will indeed be a memorable day in the history of BHP. ■



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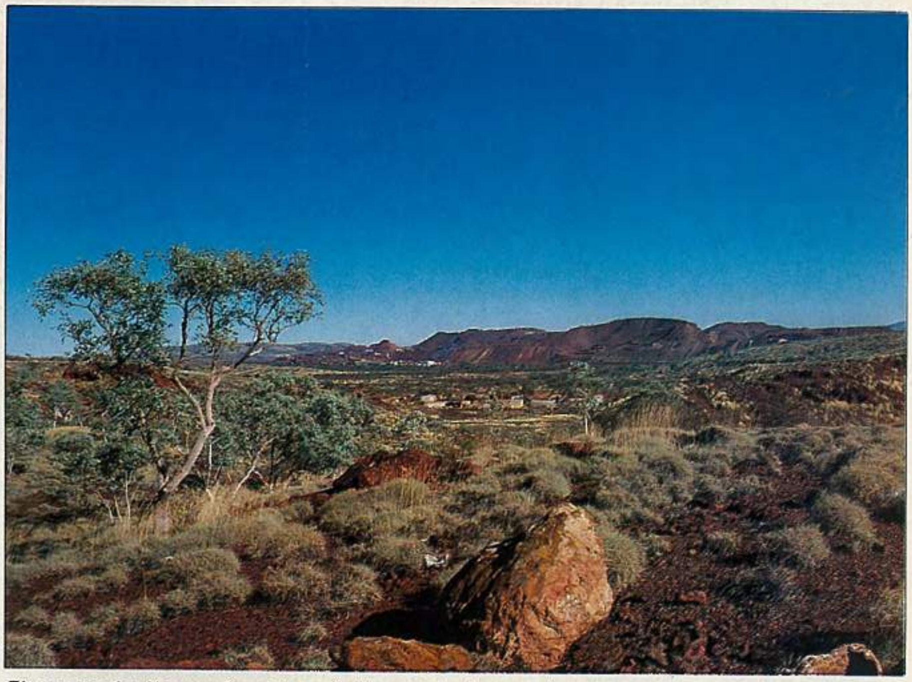
The far flung soul of a corporate empire

Far from the steel and glass corporate headquarters, the mining towns are the soul of BHP. Terrence Maher visited the isolated iron ore town of Newman in Western Australia to examine life at the work face

Images of a company town with barracks and blowflies couldn't be further from the truth in today's Newman



The reason for Newman's existence is the massive iron ore deposit with enough reserves to keep the company in business for at least another 100 years

Newman, the iron town of 6000 souls, sits just north of the Tropic of Capricorn where the East Hamersley ranges hunch their backs against the Gibson Desert. It is now the biggest town in the Shire of East Pilbara, which stretches from the Indian Ocean to the Northern Territory border and could easily encompass the British Isles or Victoria within its borders.

It is closer to Jakarta than to Canberra, and the shire capital of Marble Bar, ".just up the road" from Newman, has the dubious distinction of being Australia's hottest town. It well earned this reputation by turning on 160 sweltering summer of 1923-24. When it rains Hughie really sends it down in the cyclonic months of December, January and February.

Why then would anyone want to build a town here, miles from anywhere? Stan Hilditch gave Newman its *raison d'etre* in 1957 when he discovered a massive iron ore deposit in the middle of a big red hill which he called Mt Whaleback because it looked like a humpbacked whale.

A fat lot of good it did him. Hilditch and his partner had to wait until 1960 to stake their claim. The Federal Government, banned the export of iron ore for the 30 years leading up to 1960.

BHP became intimately involved with Newman in 1967 when its subsidiary, Mt Newman Mining, was given management of the project by the international joint venturers who brought Hilditch's dream to reality.

By April 1, 1969, the company had built its own town, developed Mt Whaleback into the world's biggest single-pit iron ore mine, constructed a 426-kilometre private railway to Port Hedland and shipped its first ore to Japan.

But what sort of town did BHP establish and what's it like to live in? Those

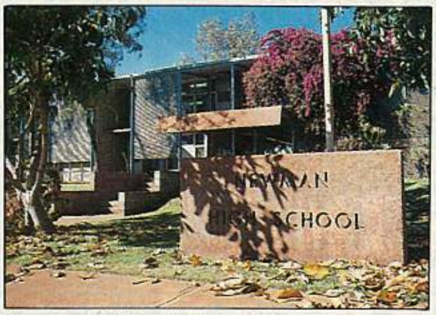
people who see company towns as being ruled by the blowflies, the barracks and the bureaucracy will be disappointed. Nothing could be further from the truth in today's Newman.

Newman has been "de-institutionalised" as a company town, has had democracy and private ownership thrust at it and is making steady progress from toddler to independent infant.

The company sold the town to the Shire of East Pilbara on May 2, 1981, for precisely $1. This was not some sort of patronising gesture but a declaration by the company that it was not in the business of running towns and had become a reluctant landlord and municipal administrator for its Newman workforce.

Not that BHP has withdrawn from the town. Far from it. It is still the largest employer, the largest homeowner and the largest ratepayer. Facilities such as the Newman Turf Club still fall off the back of the company's trucks.

Mt Newman Mining has enough reserves to stay in business for at least another 100 years. Up to a dozen giant iron ore carriers wait off Port Hedland for their turn to load and the company is in the market for another 100 skilled workers and their families to move to Newman.



Newman's high school was built by the company but the transition to normal shire town is nearly complete

How will they suffer working and living in an environment that gets so hot during the long Dry that the town and mine's water supply has to be kept underground in vast, rechargeable aquifers to stop it evaporating away?

They won't. One of the wonders of Newman is that its people go about their business in air-conditioned capsules. From the enormous dump trucks with tyres 2.7 metres high to the houses, offices, shops and cars, all are air-conditioned. In fact, the climate is one of the things that people really like about the town.

When the iron ore towns of the Pilbara were established in the 1960s, the various companies signed agreements with the West Australian Government to build and administer their own towns. At that time the state had neither the financial resources nor the expertise to set up towns in remote areas.

The company built most of the town's high-quality housing, the hospital, the shops, community facilities, two primary schools, the high school, the college, the police station and the mosque. It provided the water, electricity and drainage services as well.

But it couldn't go on like that, and both the company and the community knew it. In 1976, the State Government moved to "normalise" the mining towns of the Pilbara.

In April 1980, a home ownership scheme was begun and 30 percent of the town's houses have been sold to employees on easy terms. Many residents have subsequently made substantial additions to their homes, building extra rooms and installing swimming pools.

Now, as a shire town, Newman is open for business. ▪

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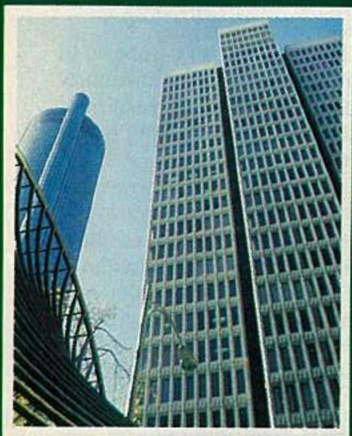

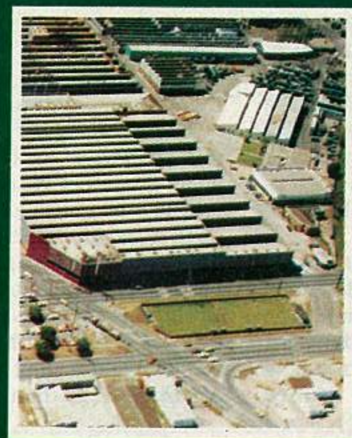

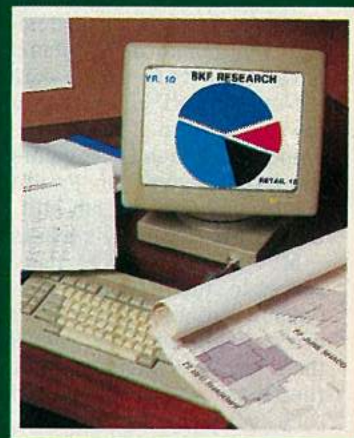

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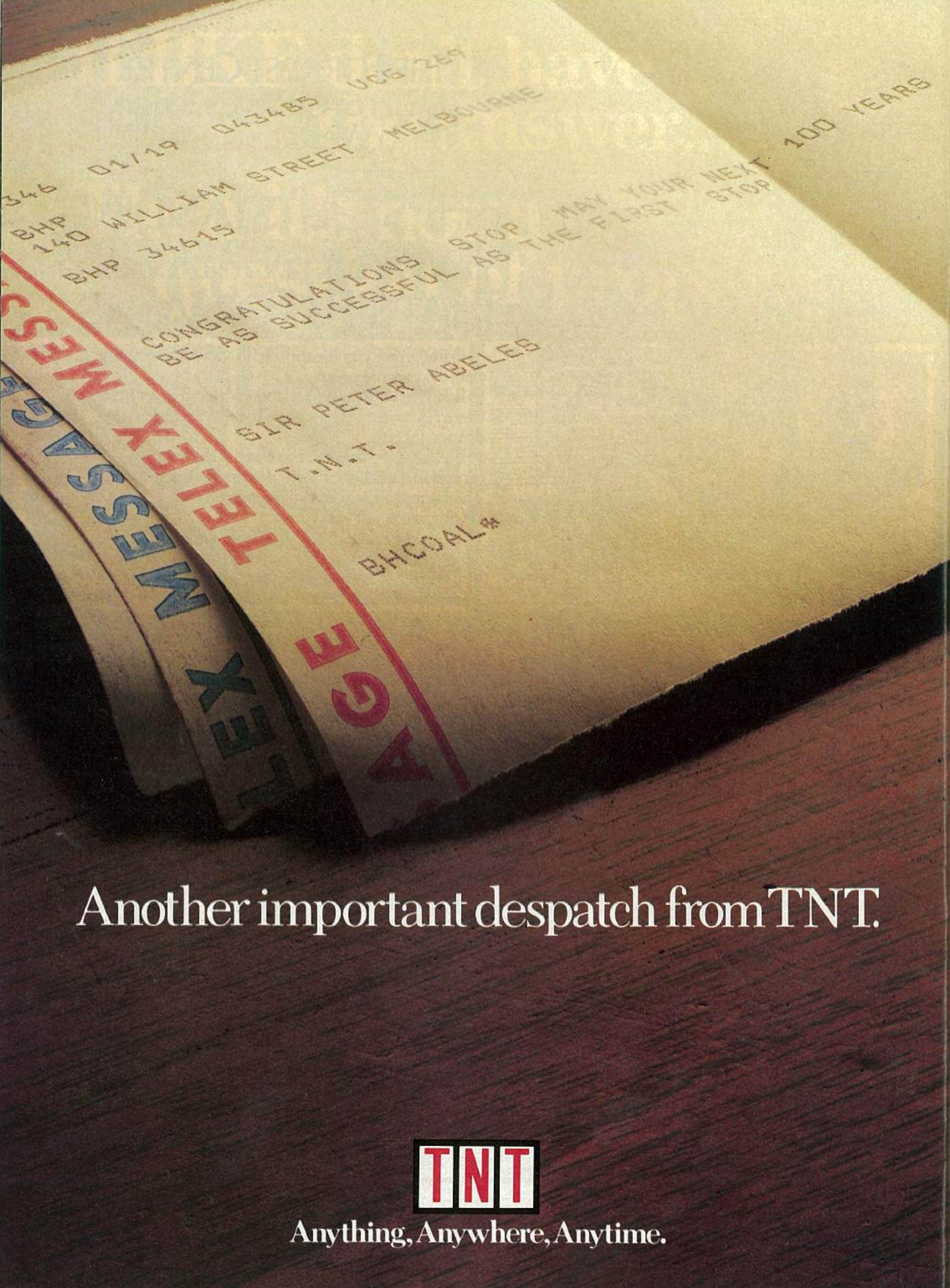
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In search of progress

To maintain its competitive edge BHP must stay at the forefront of new technology. John Kavanagh talks to the research department which has made BHP a world leader in steel making and mining technology.

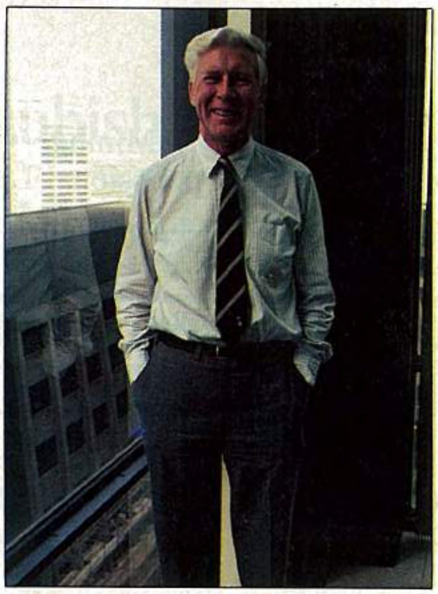
Bob Ward is taking the tools of the post industrial revolution to update those most industrial of occupations: steel making and mining. Ward is the king of Australia's research and development managers, performing a $37 million balancing act between the demands of BHP for improved steel making and mining techniques and the abstract inclinations of his scientists and engineers.

BHP revealed its research and development budget in its annual report for the first time last year. The $30 million it spent (up to $37 million this year) is in keeping with the company's image — it is certainly the country's biggest research budget. But a study of the spending reveals that under Ward's stewardship BHP is a cautious and thrifty spender, a little unsure of the future, determined not to stray from its traditional markets but committed to keeping processes in those markets up to the mark.

BHP was hit hard by the recession of the early 1980s and was shown to have allowed its once highly efficient steel making operation to become antiquated. Now in the era of the steel plan, the company is committed to improving its productivity, and Ward's research and development initiatives will play a big part in that work.

In his speech to the company's annual general meeting in September last year, BHP chairman Sir James Balderstone told shareholders that BHP's long-term investments in industry would have to be supported by significant cuts in labor costs.

BHP has spent between 0.5 percent and 0.6 percent of sales on research and development during the past 10 years. In 1975/76 it spent $10.7 million (0.58 percent of group sales). That figure rose steadily throughout the 1970s, and in the past four years has remained just under 0.6 percent. BHP does not need to feel ashamed when the finger is pointed at the miserly research and development spending of Australian industry.



Bob Ward: we made up our mind to be the best in mineral processing

The bulk of the money (about 70 percent) is devoted to tactical research, aimed at reducing costs and improving productivity. BHP has successfully developed microprocessor-based equipment and systems for its mining operations, improved the yield of its coal washeries and made savings in steel processing by innovations such as direct charging of hot-rolled slabs in reheating furnaces and by recovering gases which had been flared. Mt Newman Mining has become a leader in low maintenance, heavy-haul rail operations.

These pragmatic applications of technology echo the company's earliest breakthrough — the development of the flotation process in Broken Hill. At the turn of the century Delprat invented a means of putting all the unused zinc to use. His flotation process — where bubbles blown into a vat attract the mineral to be extracted, leaving an easily removed scum — is the basic system still in use for mineral extraction the world over.

The company's most recent breakthrough is the development of a casting technique at Whyalla that toughens the heads of railway tracks where they come in contact with train wheels. This head-hardening technique has proved so successful that the Whyalla plant has doubled its capacity.

Thirty percent of the budget is reserved for what the company calls strategic research and development. This money goes into potential business opportunities that should pay off some time later.

One such project is the conversion of natural gas to liquid fuel. Ward says: "Everybody says we are going to have plenty of liquid fuel in the future. We don't believe that. But Australia is going to have natural gas coming out its ears — BHP certainly is — so we are looking at ways of producing a bulk product."

Another important strategic development is the investigation of new smelting processes using plasmas (very hot gases) as the source of energy. "We are hoping to replace electric arcs as a

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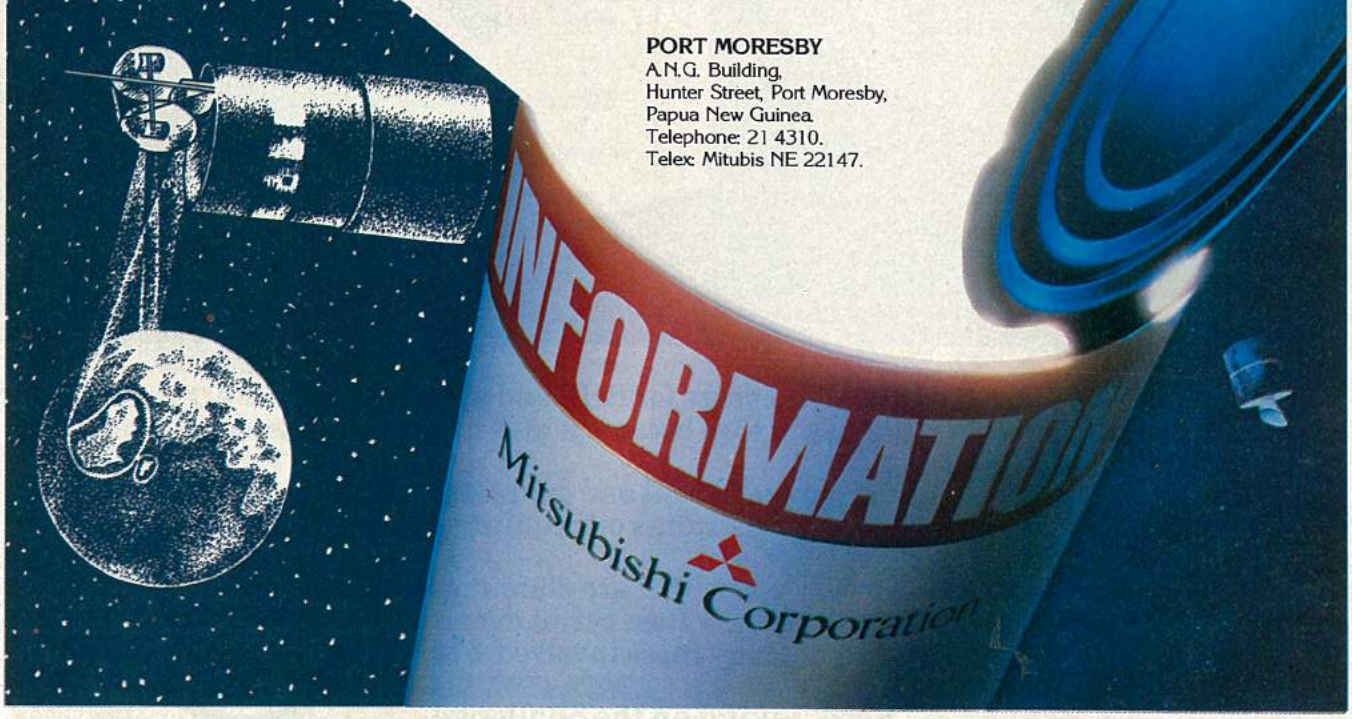

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result of this project," says Ward. "It is the most forward-looking project we have in steel making. We want to replace the conventional graphite electrodes with plasma torches. If we can do it we will have made a major impact on the economics of that operation."

Ward believes that BHP is meeting the challenges to its markets. "Some people seem to have got the wrong idea because we don't go around publicising our work or going into new and exotic areas. We find that we have enough to do to keep up in our markets."

BHP is confident that it has the steps mapped out for taking steel production up to 350 tonnes per man per year. Port Kembla is going on to nearly 100 percent continuous slab casting, following an installation worth $146 million. Plans are under consideration for continuous casting at the Newcastle plant.

"We are putting money on the line in the steel division. Our control has improved and we are doing a better job there," says Ward. He does not believe that BHP will be a victim of the push by plastics makers into the car industry; BHP will produce a cheaper product for the industry. "Plastic is changing fast and we will have to monitor its development, but once upon a time people were telling us that aluminium would destroy our car industry market. At the John Lysaght research centre new products are being developed to reduce mass and achieve better corrosion resistance.

The research centre is also making sure that BHP products remain competitive with aluminium. Researchers have recently produced a lightweight tin plate.

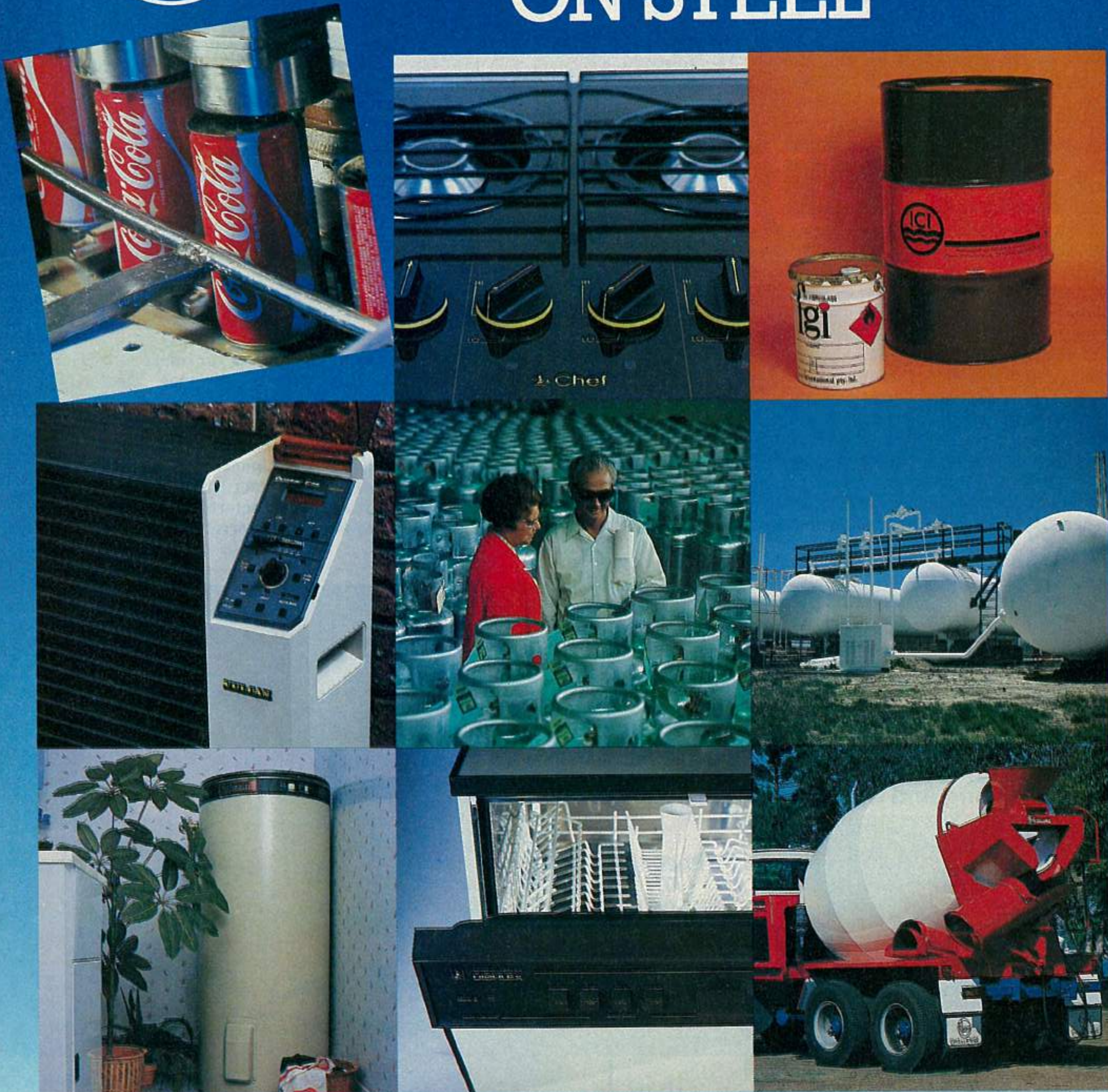
Ward acknowledges that BHP has been cast as slow and unimaginative in its thinking but he believes this perception is a result of irrelevant comparisons with companies such as CRA which are investigating completely new markets.

"At the moment we see ourselves very much as experts in mineral processing. We have looked at some of these side issues and always rejected them. It doesn't mean we will always do that but it has to fit in with our corporate development plans. This is a country of great mineral wealth, so we made up our minds to be the best in mineral processing. We are not ignoring new business, but we have plenty on our hands and we think we should stay where we are. Don't forget that we have made a big commitment to strategic planning in our markets."

BHP has maintained its involvement with Perth inventor Ralph Sarich. BHP has a 50 percent stake in the Orbital Engine Company and since 1972 has put more than $10 million into the development of Sarich's orbital engine, orbital fuel injection system and orbital combustion process. Several American companies have expressed interest in the Sarich products.

Ward believes the prizes will go to those who use new technology to make old industries "really hum", and this is why BHP's effort goes into upgrading the performance of its existing capital equipment. It has undertaken major developments in computer software for image processing in mineral exploration, satellite surveying, coal seam analysis, dragline performance and furnace monitoring. Last year the Chicago Museum of Science and Industry gave BHP its prestigious IR-100 award for a software product that measures the infra-red characteristics of materials and is used for correlating ore samples.

A REPUTATION BUILT ON STEEL



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How BHP took on the Japanese and won

After 12 years as a "BHP watcher", Peter Robinson looks at the duel between the company and the Japanese steel industry. While the battle has often been bloody, Robinson contends that BHP has emerged the winner

After nearly 12 years of observing the Japanese steel industry as a correspondent stationed in Tokyo, it was an intriguing experience in October 1966, to be assigned to take a long look at the management of Australia's steel industry. BHP, in other words.

Until the end of 1964 I had worked outside Australia for almost 20 years, mostly in Japan. In terms of direct experience I had missed the post-war period of trauma which haunted Australia's economic recovery. I had spent a good deal of time covering what can now be seen as one of the most significant economic stories in history: the post-war recovery of Japan from total devastation to economic dominance.

Now I had come back to Australia just as the fallout from Japanese growth was beginning to pervade Australian perceptions.

The years 1965-66 were among the most significant in BHP's history. In many respects, the similarities between BHP and what were then the two leading Japanese steel companies, Yawata and Fuji, were actually much more obvious than their differences.

BHP was full of optimism. In 1965 it embarked upon its biggest expansion program. Big extensions at Port Kembla were put in train, particularly in the flat products area. "The ramifications of this expansion of flat products capacity will have an effect throughout many fields of Australian secondary industry," an announcement said.

A big expansion of Whyalla's shipbuilding capacity was announced. The partnership with Esso for Bass Strait oil and gas exploration quickly moved to the operational stage and to the first discovery.

I found that BHP — like the Japanese companies — was heavily oriented

toward technocracy; obsessed with getting the latest equipment, expanding production, fighting off threats to the market for steel products. Like the Japanese companies, too, it lacked a flamboyant profile.

The BHP of 1966 dominated the Australian company scene then, as it does now, but it still clung to the values of leanness and simplicity and was a bit ambivalent about the way it communicated with the public. Perhaps this was partly due to the activities of Albert Shepherd, the company's biggest individual shareholder and a very public crusader for a better deal for people holding BHP scrip.

BHP could never have been attacked as a company which forgot its national responsibilities, even though its relationships with government were fairly stand-offish. Many shareholders, Albert Shepherd among them, argued that its concern for its own perception of national responsibilities had been carried to excessive lengths.

This ambivalence was becoming very apparent in 1965-66 because both the scope of the company's activities and its management were facing significant changes.

One executive who did not need to be told the necessity of communication was the chief general manager, Sir Ian McLennan. He was a BHP man through and through, an engineer who had joined BHP in 1933 and spent his entire career with the company.

Sir Ian talked in blunt and no-nonsense terms, but many of the company's other executives were much less accessible. That was a time when BHP, Australia's largest non-government employer of labor, did not have a separate personnel department, when its marketing division had remained weak after decades of an insatiable demand for steel and when its whole orientation was toward technical excellent. (When BHP decided in 1959 to instal a 200-ton oxygen converter in Newcastle there was no vessel of that size in operation anywhere).

My conclusion at the time was:

"It is hardly surprising, in view of the long transitional period during which Mr Essington Lewis controlled BHP but gradually relinquished the reins of power, that the tradition of highly centralised, one-man control has struck deep roots in the company.

"Because of this and because of the gentlemanly, reserved way in which BHP conducts its business, nothing so crude as a 'struggle for power' can be discerned behind the modest facade of Essington Lewis House.

"Yet it is a fact that unless some radical change of course occurs in the near future, BHP will soon be a company just as much under the domination of one strong executive as it was in the heyday of Essington Lewis."

This proved to be partly true. Sir Ian McLennan did become a dominant chief executive, but nevertheless the vast changes to the nature of the company which had begun in 1965 also steadily broadened the management base.

From that time, BHP became less like the Japanese steel companies which it had once resembled. Whether or not Sir Ian envisaged it at the time, the company's movement into oil and gas and the growth of its raw materials exporting activities meant that it was becoming a multinational.

A little more than 10 years after this first detailed encounter with the company, I had a much more comprehensive insight into its thinking and philosophies when I was an associate commissioner sitting on the Industries Assistance Commission's inquiry into the iron and steel industry.

Sir James McNeill was then chief executive. By that time, BHP's steel making activities had belied the hope of the 1960s. The vast investments of the Japanese and their pricing policies and the growth of steel industries in Korea and elsewhere had made the outlook for new steel investment unattractive.

BHP, possibly for the first time, was a supplicant for government assistance. There was something a little eerie about hearing BHP steel men emphasise the negative aspects of their activities, the technological and economic disadvantages under which they operated.

It was, in fact, impossible to avoid wondering whether they were not simply identifying the broader crisis facing Australia as a whole. If the nation's mightiest corporation found the going so tough, what about other companies?

It is an analogy which may well be broadly correct. The nature of the problems then facing BHP steel was certainly similar to that confronting manufacturing industry generally. BHP was able to extricate itself from the difficulties through the remarkable evolution of its corporate strategy into one that emphasised a world role for a world-sized corporation.

Looking back from the perspective of 1985, it is fascinating to note that BHP is no longer anything like a Japanese steel company (few of which are doing well).

The Japanese steel industry remained oriented toward investment within Japan, which has a rising cost structure and severe natural disadvantages. BHP looked abroad for new markets and new opportunities (aided, it is true, by the possession of natural resources unavailable to the Japanese). In retrospect, its caution in proceeding slowly with expansion or modernisation of steel production proved entirely justified.

The new face of the company is reflected in its relationship with the media. Once cautious to the point of neuroticism, BHP today is in the forefront of Australian companies anxious to explain their every process to the public.

The question that must be asked is: does 1985-86 represent another important turning point in the company's history? In a world where markets for both energy and basic commodities are undergoing tumultuous change and where the substitution of other materials for steel proceeds apace, it is difficult to believe that a transformed BHP does not have new directions in mind. ■

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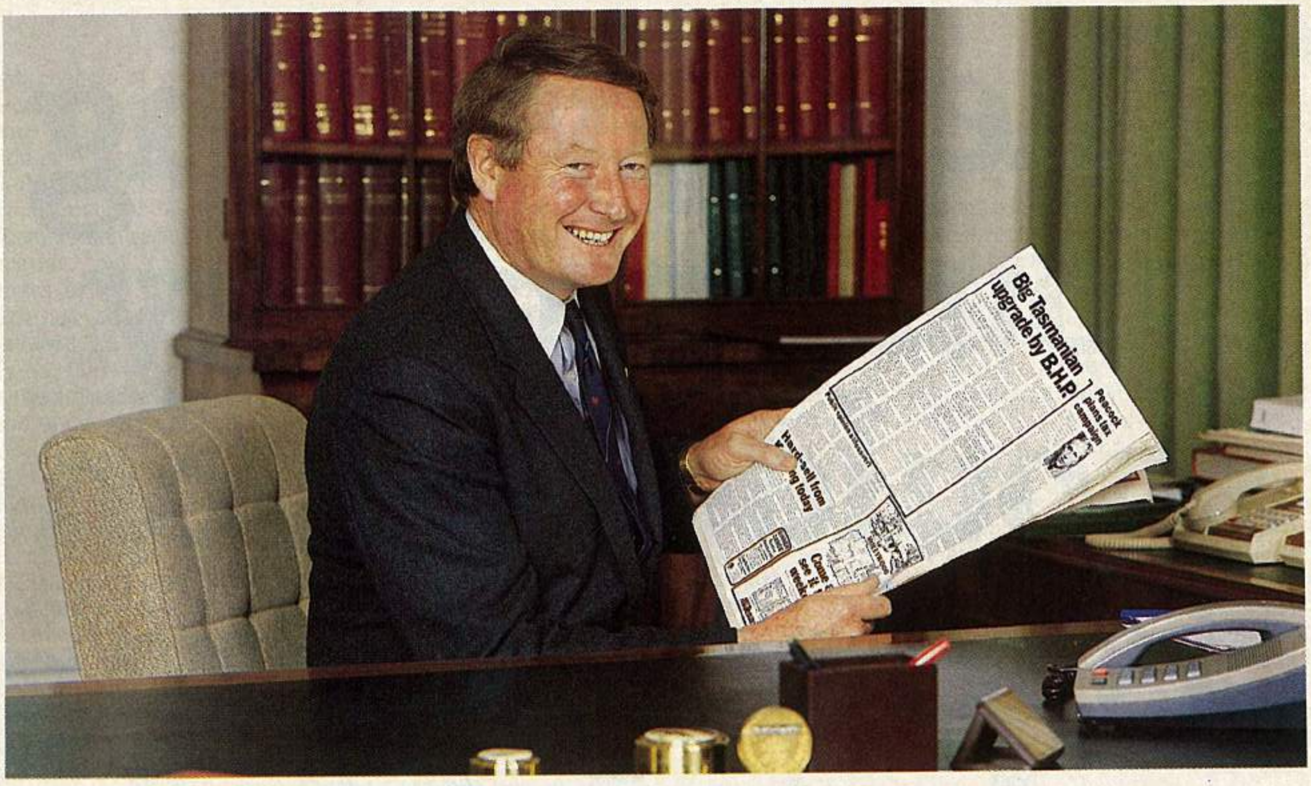

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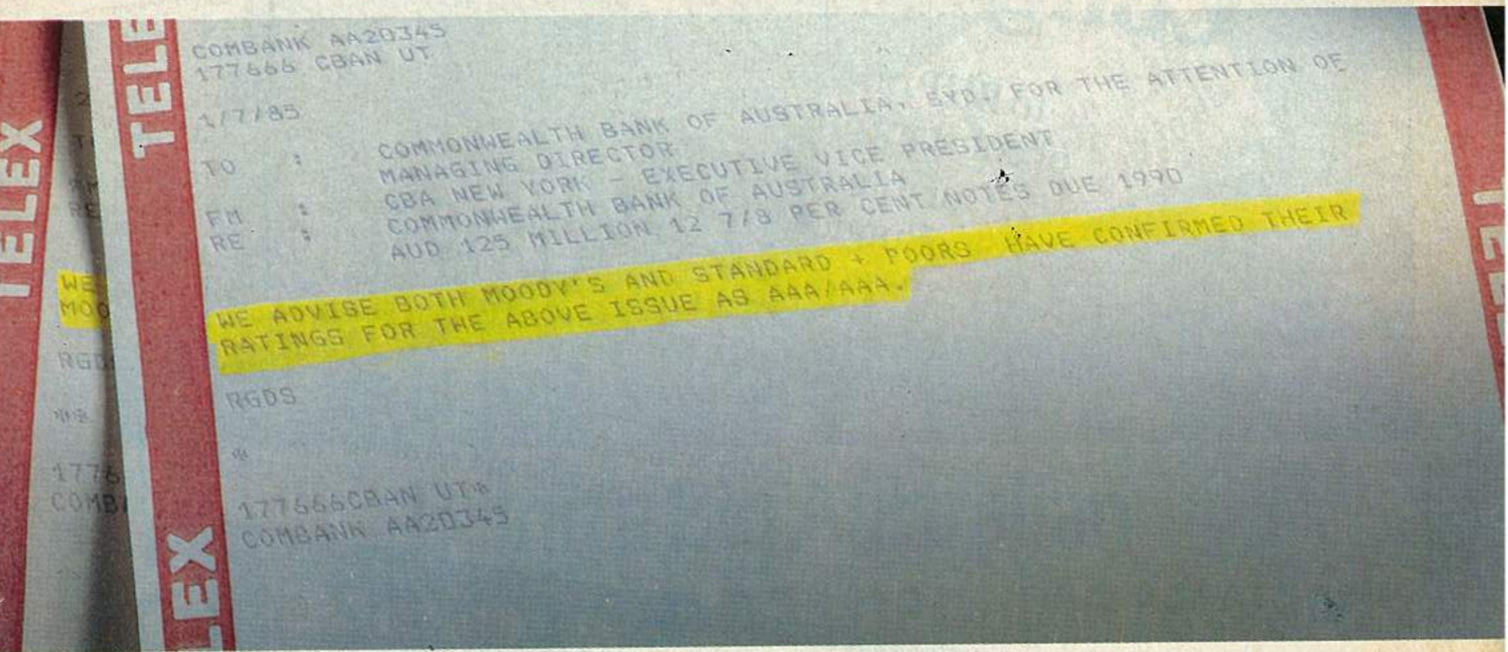

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