1996

PARLIAMENT OF TASMANIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

ANTARCTIC AND SOUTHERN OCEAN CENTRE

Brought up by Mr Cox and ordered by the House of Assembly to be printed.

MEMBERS OF THE COMMITTEE

LEGISLATIVE COUNCIL	HOUSE OF ASSEMBLY
Mr *Wilson* (Chairman)	Mr *Cox*
Mr *Wing*	Mr *Goodluck*
	Mr *Groom* (Braddon)

By Authority: Government Printer, Tasmania

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INTRODUCTION

The Committee the honour to report to the House of Assembly in accordance with the *Public Works Committee Act 1914* on the proposal to establish the Antarctic and Southern Ocean Centre.

PROPOSAL

The Tasmanian Government is committed to lease a 3,600 m^2 ground floor building shell from John Fuglsang Development's project in the Salamanca Quarry. It is the Government's intention to construct a major tourist and educative attraction based on Antarctic and Southern Ocean themes within the leased shell.
The project was announced by Government in February 1995. Mr Fuglsang started construction of the development January 1996.

This project entails the expenditure of up to $6 million on the building fitout and exhibition works as the principal component of the Centre development, with the objective being the development of an infrastructure which will have significant benefit to Tasmania and reinforce the State as Australia's gateway to Antarctica and the Southern Ocean.

The wealth, variety and significance of the education and research conducted in Hobart provides the basis of the development of an interpretative experience that will be unique in the world. It is estimated up to 200,000 visitors will enjoy the experience in a full year's operation and the Centre will provide a much needed facility for the family and youth market.

The Centre is to be located in the historic Sullivans Cove precinct of Hobart and will be part of the $55 million Salamanca Quarry development, construction of which commenced in January 1996. The developer will provide approximately 3,600 m^2 of ground floor accommodation, leading onto Salamanca Place, on a lease basis with building provisions specifically designed to accommodate the exhibition. An Agreement to Lease is being negotiated. Access to the premises for the exhibition fitout is expected to be made available in early June 1997 with a view to opening to the public in December of that year.

The exhibition will be a technologically advanced, popular, interactive tourist attraction, providing knowledge and experience of past, present and future activities associated with Antarctica and the Southern Ocean.

COSTING

A detailed cost plan is being maintained for the development to ensure that the building and exhibition works costs are contained within the capital development allowance determined in the business model.

The budget costs are:

	$
Additional works:-	
Building Elements	1,165,000
Mechanical services	755,000
Electrical services	300,000
Exhibition fitout works	3,500,000
Fees	280,000
Total	**6,000,000**

The above estimates include fees. They exclude any allowance for escalation costs due to increases in the Building Cost Index (which are expected to be minimal).

Value Management Analysis techniques will be applied to all project packages to analyse all options and confirm those best suited to the Centre's requirements. The analysis process will also serve to confirm that the maximum value for money is being achieved in the detailed design and documentation of specific building and exhibition elements before work on site is commenced.

EVIDENCE

The Committee held a public hearing on the project at Parliament House on Thursday, 30 May 1996, such hearing was preceded by an inspection of the site of the proposed project. A written submission from the Department of Environment and Land Management Office of Antarctic Affairs was received and is appended to this Report.

The following witnesses appeared before the Committee:-

Tony Hughson, Manager, Department of Environment and Land Management Office of Antarctic Affairs,
Jason Clarke, Creative Director, AAV Business Communications
Roy Cordiner, Consultant and Project Adviser
Clive Abbott, Project Supervisor, Department of Environment and Land Management Office of Antarctic Affairs

At the hearing Mr Hughson submitted the following:-

> *"...The Antarctic and Southern Ocean Centre is a much-needed attraction for Tasmania. It really has a number of objectives that are included in the submission but I think three actually do stand out, and the first of those is that it will provide a shop window for the research that goes on in Antarctica and the Southern Ocean that emanates from Hobart. Hobart has the biggest collection of research and education personnel that are involved with Antarctica and the Southern Ocean in the world, and this is our comparative advantage in this area. So the first thing is the Antarctic and Southern Ocean Centre will be a showcase for that research.*

The second thing is that it will provide a much-needed addition to the tourism infrastructure in this State. It will provide the opportunities for families to enjoy themselves when they are in this particular area of the State. It provides the opportunity for people, especially of younger age, to entertain, educate and amuse themselves, and of course, because it is under-cover, it provides an opportunity for people to be active during inclement days.

The third major advantage of the centre is that it will bring to the world's attention the value of Hobart in Antarctic resupply. As part of the Antarctic infrastructure it will bring the world's attention, as the New Zealand centre has done with Christchurch, to Hobart and its resupply capacity and its gateway capacity. The centre will be unique in the world; there will be nothing else like it in the world today, and for that reason we believe it to be an interesting project..."

Mr Clarke explained the concept of the exhibition:-

"...Hobart, so far as we can see, is guardian to one of the biggest planetary resources there is. Now all that work is going on but it is basically invisible, so what we want to do is to introduce people to this bigger view, this world view, that basically connects them directly to the Antarctic and Southern Oceans.

Where we have just been walking, if you dip your toe in the water you are part of the system that we are talking about. It is not a distant remote academic thing, it is actually one of extreme and immediate importance. So our job really is to try and bring that connection home to the public, to give them the penguins and to give them Mawson and Shackleton to get them in the door, but then show them there is this much larger view and it is one that includes them.

The reason for us doing it is we think that is the international significance of the centre. When Tony said there was nothing like it, it is because it is not a museum of Antarctic bits and pieces; it is almost like an environmental interpretative centre. It allows you to understand the engine of change that sits down in that region and how it affects everyday life. So for that end our approach is to create a live working environment that is basically dynamic information from the research bodies themselves in a place where the public can interact, get involved and participate interactively with that sort of information. For that, the next step from there is to create a virtual museum where people from around the world will be able to tap into this place and see what is going on, and have a reason to come and visit the place physically because there is things obviously that you cannot get on the Net but you can get by being there..... I mean to me the best analogy is probably the mission control one, in that we want to say, 'Look, you will never go to Antarctica; the chances are you are not going to go, but what is important is that you do not have to go'. So our working title - and it

ruffled some feathers - we called this thing 'Salamanca Base' for a while, because our idea was, what if you had gone to the most cutting edge high tech Antarctic research centre and you could walk around and actually get involved and play with the stuff and steer the weather satellites and do all that sort of thing; what would that environment do?

So to us it has to have this genuine working environment feel to it, as opposed to a museum, which tends to be a static collection. So, for example, we will not dedicate a lot of space to Ninnis' skis or Mawson's boots; you can get that just about anywhere. We have really just enough of that to try and bring people in, people who are doing the rest of the polar pathway walk, for example, but just say, 'This is a 1996 interpretation of Antarctica, and the theme that we are using is that the real explanation is only just beginning; it really wasn't an heroic period. What we are doing now is the most exciting and important stuff, and what we are discovering locally has ramifications globally'....."

The Committee questioned the witnesses in relation to the ability of the proposed facility and its supporting infrastructure to accommodate change in exhibitions and enable an 'antarctic experience'. Mr Clarke submitted:-

"...As the exhibition designers, we do not normally get called in on something this early. They usually say, 'There's the building; it's finished; go fix it; go make it work'. We have been fortunate enough to get involved very early on so that we can plan some big ideas and when the building is completed we have no excuses. We cannot say, 'We didn't know that wall was going to be there' because we know exactly where the walls are going to be.

...we have been looking at education officers because we think that the schools and education is a huge one to be dealt with here. In terms of the resources themselves, they already exist; they are currently in universities scattered across Hobart and across Tasmania. What we are trying to do now is just find a way of interpreting it for the public consumption, and part of the negotiation that we are doing with Tony's office is to look to see whether this could be an active working environment for people doing the real research...

We have been talking to the division about an explorer training simulator - one that was so credible that they would train people in it themselves. So instead of saying, 'Here is a big, white room; we'll make you feel like you've gone to Antarctica', we will say, 'Here is a wind tunnel that an explorer would go into to train. Here is a cold room where you would go. Here is a wind-chill experience', and sort of disconnected into a series of separate experiences: so this is a psychological chamber; this is the isolation chamber, whatever. So that if you were to go to the, say, the jet propulsion laboratory in Pasadena, you might see where the astronauts train to walk on the moon. They would not create a moon experience for you.

Part of our whole feel is this has to be real and genuine and have a certain scientific integrity. We are trying to deliver all of those experiences that people want without it becoming an Antarctica World theme park. So the idea is to, say, develop the simulator training in conjunction with people like the division and make it available to the division, so that you are in there the day that a real person was preparing for a trip...."

CONCLUSION AND RECOMMENDATION

The proposed Antarctic and Southern Ocean Centre is an interesting and exciting development which will serve to reinforce the important role that Tasmania, and Hobart in particular, has as part of the Antarctica infrastructure. It will have the added benefits derived from its standing as a unique tourism and entertainment destination and as a centre for research and education on Antarctica and the Southern Ocean.

It was submitted that the Agreement to Lease is for an initial period of ten years with an option for the Government to extend that for a further ten years. The Committee is satisfied that such provision enables the security of this investment together with the opportunity for further development of the Centre.

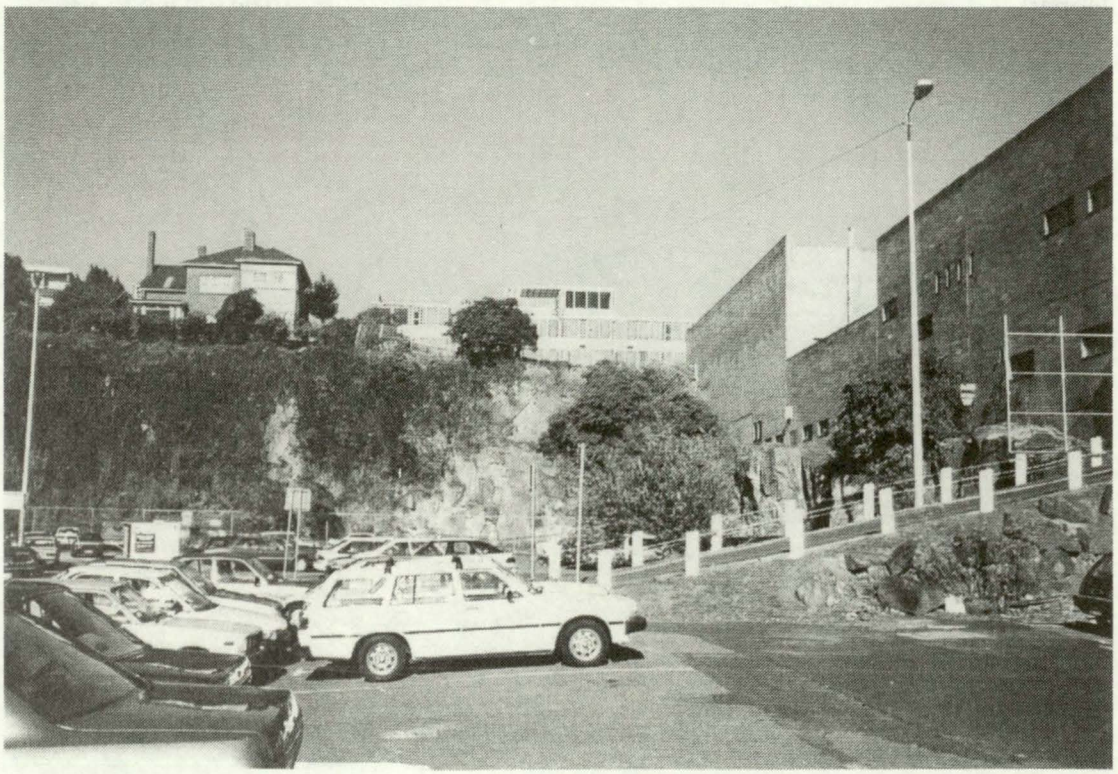
Accordingly, the Committee recommends the project, in accordance with the plans and specifications submitted, at an estimated cost of $6 million.

Parliament House
Hobart
18 June 1996

S.J. Wilson, MLC
CHAIRMAN

THE SITE AT SALAMANCA QUARRY

The above photograph illustrates the entrance to the complex from Salamanca Place. The quarry walls can be seen in the background. Walking through the entrance plaza one arrives at the Centre entrance which is approximately at the point marked by the lower edge of the photograph below. The Centre will cover the area shown in this photo to a height of 7 metres



SALAMANCA OFFICE DEVELOPMENT

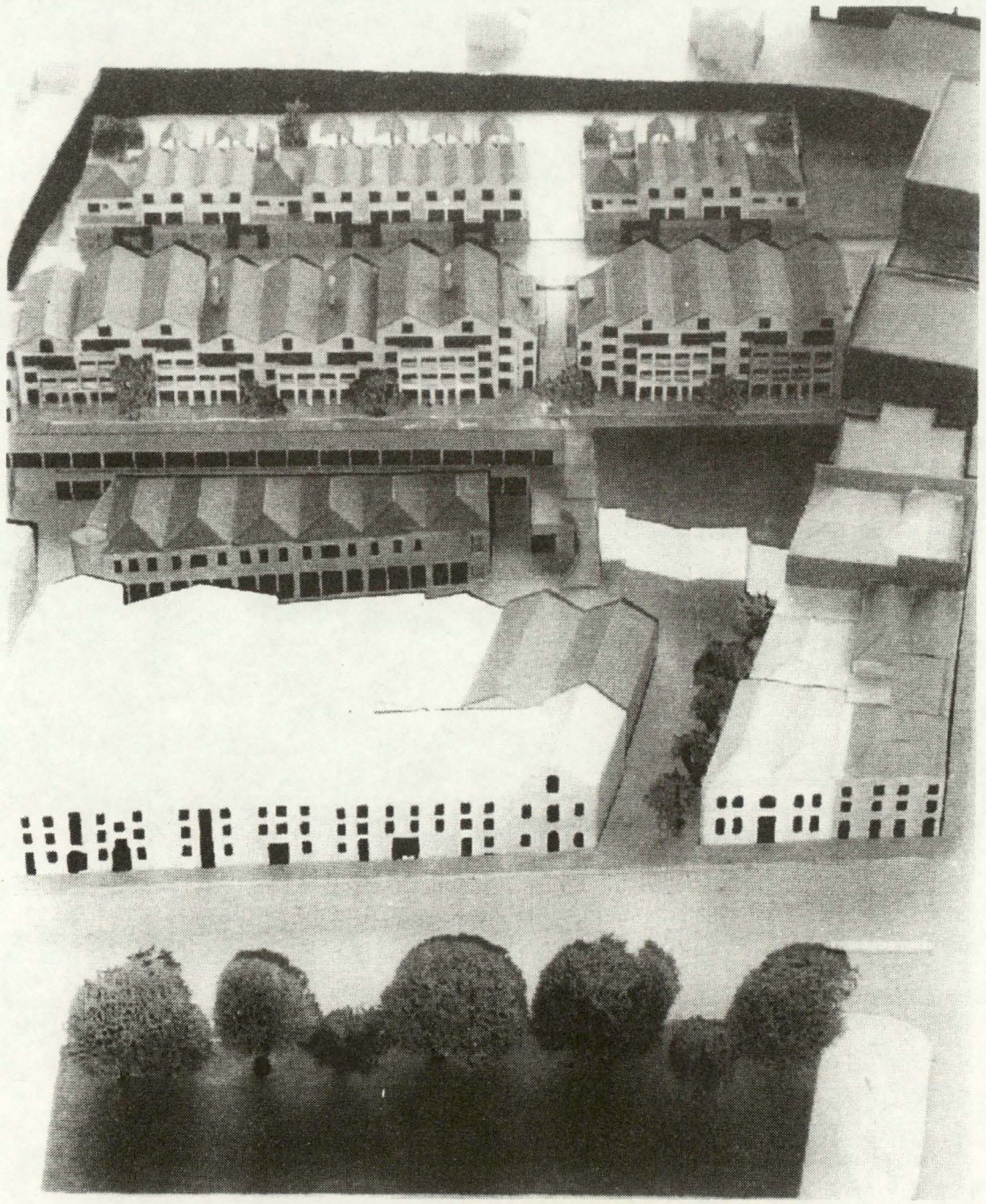
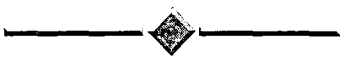


Photo of Architect's Model
(New development in upper half of photo)

28 May 1996

DEPARTMENT OF ENVIRONMENT AND LAND MANAGEMENT

OFFICE OF ANTARCTIC AFFAIRS



ANTARCTIC AND SOUTHERN OCEAN CENTRE DEVELOPMENT

SUBMISSION

TO THE

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

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1. SUMMARY

1.1 Introduction

This submission seeks approval from the Parliamentary Standing Committee on public works for building fitout and exhibition works for the Antarctic and Southern Ocean Centre in Hobart.

1.2 Background

The Tasmanian Government is committed to lease a 3,600 m^2 ground floor building shell from John Fuglsang Development's project in the Salamanca Quarry. It is the Government's intention to construct a major tourist and educative attraction based on Antarctic and Southern Ocean themes within the leased shell. The construction of the Salamanca project, including the Centre, commenced in January 1996.

Mr Roger Gibbins of Spiller Gibbins Swan Pty Ltd, Urban Economics and Planning Consultants maintained in an independent assessment of economic impact analyses, July 1994 that: "The impact analysis provides convincing evidence that the proposed commercial component in the Quarry project will not compete directly with the CBD nor with established businesses in Salamanca Place.

In fact, the analysis provides evidence that the development is potentially beneficial to the CBD in increasing the attractiveness of the central area vis-à-vis competing suburban malls. Moreover, it has the potential to enhance Salamanca Place as a destination for the benefit of all businesses.

With regard to the criteria adopted in this assessment:

- there are no identifiable adverse impacts outside the realm of economic competition;
- there will be no physical blight as a result of the development proceeding;
- intervention in the form of constraining the development may have adverse impacts of greater import by creating disincentives to invest in worthwhile projects in Hobart."

The Antarctic and Southern Ocean Centre, along with the other initiatives, establishes within Tasmania one of the largest Antarctic infrastructures in the world. Hobart is predominant as a repository of research and educational information. The Antarctic and Southern Ocean Centre will provide research bodies with the opportunity of promoting and displaying their findings and in the process informing the Australian and international public of the importance of Antarctica and its systems to the ecology of the planet.

1.3 The Overall Development

Mr Roger Gibbins stated in a separate report to the Commonwealth Government's Regional Development Infrastructure program in October of 1994 that the external benefits and contribution to regional economic development of the Salamanca project were as follows:

"The major development project within which the Centre is embedded will create 420 full-time jobs over its 2-year construction period. The same project will create 200 full-time permanent positions once constructed and the activities associated with it will generate $9 million in Commonwealth and $3.5 million in State taxes and charges.

The Centre itself will generate benefits to the regional economy by virtue of its ability to increase the retention of visitors within the Hobart region. On the assumption that the Centre will achieve visitation levels in the range 200,000 to 250,000 per annum and that the Centre induces between 30 - 40 % of these to spend an additional night in Hobart, additional annual tourist expenditure in the region will increase by between $9.45 - $12.4 million. Export earnings gained from the world-wide sale of educational merchandise and services are not included in this estimate".

The Antarctic and Southern Ocean Centre project consists of fitting building works and an exhibition into a preconstructed shell of approximately 3,600 m^2. The space allows for the construction of an exhibition, office accommodation on a mezzanine floor, a retail outlet, a theatre and a rest area. The fitout is to be completed by December 1997 when the Centre is due to open.

The Centre will be established with the following objectives:

- Increase the appeal of Hobart to the family tourist market and to be an international profile tourist attraction.
- Develop a national and international reputation as being an exciting and innovative insight into the unique part of the world, comprising Antarctica and the Southern Ocean.
- Be recognised by public and research agencies as the front window into the research effort by Australia and its partners in Antarctica and the Southern Ocean.
- Be recognised as a unique science education resource integral to the classroom program of all schools.
- Promote the development of Antarctic and Southern Ocean infrastructure within the State.
- Communicate Australia's commitment to and endeavours in the Antarctic and the Southern Ocean.
- Acknowledge international scientific and political achievements in Antarctica.

1.4 The Building Fitout and Exhibition Works

The building fitout works comprise those elements of the Centre needed to be completed by the developer before the developer gives access to the building for exhibition fitout purposes.

The exact extent of the building fitout works can only be determined when the exhibition concept has been prepared and accepted but will comprise architectural and general building works; mechanical engineering works and electrical engineering works to the value of $2.5 million (including fees) as detailed in the cost estimates provided in Section 7 of this submission

The design, tendering and contract administration of the exhibition fitout works is the responsibility of the Exhibition Consultants, AAV Business Communications of Melbourne who have included local exhibition design specialists on their team and have provided traineeship opportunities for the duration of the project.

The exhibition fitout will commence on completion of the Centre building development works outlined above. The developer has agreed to provide 3 months rent-free access for exhibition fitout.

The exhibition works, including exhibition space enclosures, finishes and fixtures, and detailed exhibitory will be tendered on a package-by-package basis making the greatest possible use of local specialist designers and contractors.

An estimated $3.5 million including fees is available for the exhibition.

1.5 Conclusion

Development of the Centre is an important State and National project. It recognises the significant management responsibilities Australia has in the Antarctic and Southern Ocean as a result of our national jurisdiction and international obligations. The Centre will provide the means for Australians to improve their understanding of the region and the important role played by Australia.

The Committee's approval is now sought for the construction of the building fitout and exhibition works for the development at an estimated total cost of $6 million.

2. INTRODUCTION

2.1 The Submission

The Tasmanian Government is committed to lease a 3,600 m^2 ground floor building shell from John Fuglsang Development's project in the Salamanca Quarry. It is the Government's intention to construct a major tourist and educative attraction based on Antarctic and Southern Ocean themes within the leased shell.

The project was announced by Government in February 1995. Mr Fuglsang started construction of the development January 1996.

This submission seeks approval from the Parliamentary Standing Committee on Public Works for expenditure of up to $6 million from the Consolidated Fund on the building fitout and exhibition works as the principal component of the Centre development.

It is currently assumed that all funding of the development will be allocated from the Consolidated Fund, regardless of the source of funds, but this may be arranged differently when the operational management arrangements for the Centre are finalised and operational funding reserves sourced.

The Government's overall objective is to develop an infrastructure which will have significant benefit to Tasmania and reinforce the State as Australia's gateway to Antarctica and the Southern Ocean.

The wealth, variety and significance of the education and research conducted in Hobart provides the basis of the development of an interpretative experience that will be unique in the world. It is estimated up to 200,000 visitors will enjoy the experience in a full year's operation and the Centre will provide a much needed facility for the family and youth market.

2.2 Description of the Centre

The Centre is to be located in the historic Sullivans Cove precinct of Hobart and will be part of the $55 million Salamanca Quarry development, construction of which commenced in January 1996.

The developer will provide approximately 3,600 m^2 of ground floor accommodation, leading onto Salamanca Place, on a lease basis with building provisions specifically designed to accommodate the exhibition.

An Agreement to Lease is being negotiated. Access to the premises for the exhibition fitout is expected to be made available in early June 1997 with a view to opening to the public in December of that year.

The exhibition will be a technologically advanced, popular, interactive tourist attraction, providing knowledge and experience of past, present and future activities associated with Antarctica and the Southern Ocean.

2.3 Management Arrangements for the Development

The Office of Antarctic Affairs, attached to the Department of Environment and Land Management, has carriage of the development of the Antarctic and Southern Ocean Centre. The Manager of the Office of Antarctic Affairs, Mr Tony Hughson, represents the Government. The Department of Environment and Land Management is providing support for the project.

The Department of Tourism, represented by the Deputy Secretary, Mr Malcolm Wells, has a significant interest in the project because of its relationship with the Antarctic and Southern Ocean Centre as a tourist attraction.

An Interdepartmental Committee consisting of Mr Tony Hughson - Office of Antarctic Affairs, Mr Malcolm Wells - Tourism, Mr Clive Abbott - Environment and Land Management and Mr Roy Cordiner - Consultant, oversee development of the project.

Two Advisory Committees currently assist with the development.

The Building Sub-Committee is chaired by Mr Clive Abbott and consists of Mr Roy Cordiner, Mr Tony Hughson with assistance from Mr Steven Gay (Quantity Surveyor) and Mr John Button (Architect).

An Exhibition Sub-Committee meets as required. The sub-committee consists of representatives from:

- Department of Tourism
- Office of Antarctic Affairs
- Department of Environment and Land Management
- Tasmanian Museum and Art Gallery
- Australian Antarctic Division
- CSIRO Division of Fisheries and the Division of Oceanography
- Institute of Antarctic and Southern Ocean Studies
- Department of Meteorology.

Assistance is provided by the Exhibition Consultant AAV Business Communications Pty Ltd.

Alternatives for centre management are to be considered by Cabinet. A Cabinet Minute is currently being prepared to identify options.

There are six consultants engaged to assist with the development. These are:

- Electrical Engineering Services — Mr Rob Leibbrandt

Mr Leibbrandt's brief is to provide detailed schematics and documentation for the electrical engineering services which include backbone cabling and sub-board systems, general lighting and the provision of a basic security system.

- Mechanical Engineering Services — Gutteridge, Haskins and Davey (GHD)

The brief for GHD requires them to be responsible for the provision of expert advice on the mechanical and hydraulic engineering services for the Centre.

- Quantity Surveying Services — Davis Langdon and Beattie

The quantity surveyor will provide a complete cost analysis of the ASOC shell, provide an estimating and cost planning service for the fitout works, provide advice on tenders, assess variations to the building shell and fitout works and assess progress payments.

- Architectural Services — Eastman Heffernan Walch & Button

The consultants are required to provide a service that includes the provision of detailed schematics for the architectural components of the building fitout works, the preparation of all necessary documentation and the integration within the building of the engineering and electrical services elements.

- Exhibition Consultants — AAV Business Communications Victoria

The brief for the exhibition consultant is to prepare, in collaboration with Antarctic and Southern Ocean scientific groups, an exhibition for the Centre. The brief includes the conceptual design, construction, installation and commissioning of the exhibit.

- General Consultant — Mr Roy Cordiner

Mr Cordiner provides a project management advisory service to the Office of Antarctic Affairs on matters associated with the Centre.

3. THE NEED FOR THE CENTRE

3.1 Background

The Tasmanian and Australian Governments have been committed to the development of Tasmania as a major international gateway to Antarctica.

Highlights of this commitment have been:

- The transfer of the Australian Antarctic Division from Melbourne to Hobart.
- State support for the location of the Commission for the Conservation of Antarctic Marine Living Resources in Hobart.
- The previous attempt to establish an Antarctic Centre in the city.
- The appointment of an Antarctic ministerial portfolio.
- The establishment of the State Government's Office of Antarctic Affairs.
- The establishment of the Tasmanian Polar Network to promote Tasmanian private industries' resupply capacity.
- The decision by the State Government to operate the Australian Antarctic Foundation on behalf of the Commonwealth.
- Support for the University of Tasmania in establishing the International Secretariat for Global Climate Change at the University.

The support continues into the future. The Government has:

- Submitted a bid for the location of the COMNAP (Council of Managers of National Antarctic Programs) Secretariat in Hobart.
- Considered the establishment of office accommodation to assist international expeditions and Antarctic related organisations.
- Shown a firm commitment to construct a new Antarctic and Southern Ocean Centre.

The Antarctic and Southern Ocean Centre, along with the other initiatives constructs within Tasmania one of the largest Antarctic infrastructures in the world. Hobart is predominant as a repository of research and educational information.

3.2 The Competitive Advantage

Hobart has a unique, competitive advantage relating to the Antarctic and Southern Ocean areas.

The city is home for the Australian Antarctic Expedition (ANARE) and the icebreaker *Aurora Australis*. The Institut Français pour la Recherche et la Technologie Polaires (IFREPOL) and the icebreaker l'*Astrolabe* consider Hobart their Antarctic point of re-supply. The Italian Antarctic expedition is jointly working with the French. The Chinese Government (CHINARE) expedition has nominated Hobart as its port for Antarctic re-supply. The Antarctic Support Associates of the United States of America has recently visited the State in the icebreaker *Nathaniel B Palmer*. These port activities, along with the strong presence of education and research establishments engaged in Antarctica and the Southern Ocean, make Hobart a logical choice for a Centre based on these themes.

In terms of timing, the advent of the Centre could not be more appropriate. The state of the environment currently enjoys strong top-of-the-mind awareness with all levels of society. The romance of Antarctica has never been more attractive than it is now, as evidenced by the number of visitors experiencing it, by both air and sea. The current fascination for whales, penguins and other Antarctic features has never been stronger.

3.3 Relationships with Other Organisations

All organisations that have an interest in Antarctic science and/or exhibitions are involved in the development of the Centre. These organisations include: The Departments of Tourism and Environment and Land Management, the Tasmanian Museum and Art Gallery, the Australian Antarctic Division, the Bureau of Meteorology, the Institute of Antarctic and Southern Ocean Studies, CSIRO and the Antarctic Cooperate Research Centre at the University of Tasmania. Each of these organisations has a representative on an organising committee that receives reports and has strong liaison with the developers of the Centre. Centre developments are also available to these people through the World Wide Web on the Internet.

3.4 Educational and Training Role

Skills development in earth sciences is a major function of the Centre. The Centre will educate in an interactive and entertaining way. It will provide visitors of all ages with the opportunity to participate in real time research. A primary example is the incorporation of a fully operational weather station which will enable visitors to prepare their own climate models and forecasts and test these against actual weather conditions the following day.

Two young Tasmanians will be offered traineeships with AAV Business Communications, one in interactive multimedia development, working with CD-ROMs and CD-Videos and the other in exhibition development. It is planned, the trainees will work on the creation of the exhibit over the next 18 months and if the opportunity arises become long-term employees of the finished Centre.

3.5 Promotional Role

Hobart is an international gateway to Antarctica. Located 2,685 km North from Dumont D'Urville, Hobart is closer to Antarctica than it is to Perth in W.A. It is also the stepping off point for shipborne Antarctic tourism as well as private and government expeditions.

The city has a long association with Antarctica. This association included its use as a departure port during the "Heroic Age" of Antarctic exploration. However, its current strengths lie in the wealth of scientific and educational establishments located in and around the city. These establishments are responsible for some of the most significant Antarctic and Southern Ocean research. They employ scientists and educators who have achieved eminence in their profession. The city of Hobart can provide a visitor with a broad Antarctic experience. The city has a large number of historical sites related to Antarctica. These sites include places associated with Roald Amundsen's historic trek to the South Pole. They include early whaling as well as early exploration. An Antarctic walk brochure "Polar Pathways" explains their location and importance.

Geologically Tasmania was the last part of Australia to separate from Antarctica during the break up of Gondwana. The dolerite columns of Mt Wellington are the same geological structures as the dolerite columns of the Prince Charles Mountains. The Tasmanian Museum and Art Gallery provides details of this interpretation. Sub-Antarctic plants can be found at the Royal Tasmanian Botanical Gardens and in time these gardens will feature a major Macquarie Island exhibit.

Examples of the importance of the Antarctic Treaty can be found at the Australian Antarctic Division (AAD) Kingston. The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) is a working example of the Treaty Organisations. CCAMLR is located at Old Wharf in Hobart.

The Bureau of Meteorology's Antarctic and Southern Ocean Section is located in Hobart. This Section forecasts Antarctic and Southern Ocean weather.

The AAD is Australia's human interface with Antarctica. The AAD celebrates 50 years of permanent Australian exploration in 1997. A collection of information and exhibits that illustrate this connection can be found at the Division's HQ at Kingston. The Division is willing to make some historical objects available to the Centre.

Hobart is the repository for most of the Australian research information discovered about Antarctica and the Southern Ocean. Its relationship with the continent is continual and live. It is this relationship that provides the material for a unique world class Centre.

The Centre will act as a conduit between information generated (researchers) and the public. In this way the public will identify the importance of Antarctica to the world and gain an understanding of the value and necessity of Antarctic and Southern Ocean research.

3.6 Marketing Information

The potential market for a new tourist attraction in Sullivans Cove is significant. Within Hobart there are a limited number of major tourist attractions for visitors to the area. The most popular attraction in Hobart, and in Tasmania, is the Saturday market at Salamanca Place which attracts 67 % of all visitors to Tasmania as well as many local residents.

Given the current attendance patterns at Tasmanian attractions, it is reasonable to assume that a new Antarctic and Southern Ocean Centre in Hobart could attract at least 200,000 to 250,000 visitors per year in the near term and potentially over 300,000 by the year 2,000. The Port Arthur Historic Site currently attracts approximately 200,000 visitors per annum at an entry price of $13. Of these visitors, only 10 % are residents of Tasmania. It is likely that, given the in town location of the proposed Centre, a greater number of visitors could be attracted. In addition, with proper programs, local residents will also be attracted to the Centre.

3.7 Overall Development Objectives

The Centre is being established with the following objectives:

- Attract tourists, residents and schools to visit and through an active, enjoyable and memorable experience, to learn about the Southern Ocean and Antarctica.
- Increase the appeal of Hobart to the family tourist market and to be an international profile tourist attraction.
- Develop a national and international reputation as being an exciting and innovative insight into the unique part of the world, comprising Antarctica and the Southern Ocean.
- Be recognised by public and research agencies as the front window into the research effort by Australia and its partners in this part of the world.
- Be recognised as a unique science education resource integral to the classroom program of all schools.
- Promote the development of Antarctic and Southern Ocean infrastructure within the State.
- Communicate Australia's commitment to and endeavours in the Antarctic and the Southern Ocean.
- Acknowledge international scientific and political achievements in Antarctica.

4. THE EXHIBITION CONCEPT

4.1. The Concept

The design starts with the assumption that the visitor will enter the front door expecting flags and penguins, Scott and Mawson. If that's where they are when they arrive, then that's where the Centre will greet them, if only to guide them somewhere else.

To this end, there needs to be a mapped-out "mental flow" that would take the public through a series of gentle revelations that lead them from their preconceptions and clichés to a far more exciting realisation - that they are part of an enormous regulatory system, one of the main engines of life on earth.

In that sense, the space should work like a swimming pool - there should be a shallow wading end, a deep diving end and gradual steps in between.

Taking the visitor's narrow preconceptions as the shallow end, the deep end should present the broadest perspective possible and offer interactive avenues for further information.

This means staggering key messages into a logical sequence like this:

1 - Antarctica is much more than a big block of ice.
2 - It is just part of a bigger system that includes you.
3 - The South Polar system affects you and your future.
4 - Science tries to understand the rhythms of the system & their effect on us.
5 - The real exploration is only just beginning - and you can join in.

The objective should be to lure as many people as possible towards the deeper layers, but not all first time swimmers will make it to the end of the pool in one go, which is why the third point probably represents a realistic base objective for those who like to "window shop" through an exhibition, while the remaining levels would cater for those interested enough to dig deeper.

The design will adopt this staggered approach, to turn the casual browser into an interested grazer and, ultimately, into a motivated hunter.

In other words, the space should cater for three layers of involvement - passive, active and interactive - each with a strategic role to play in what should be an unfolding series of discoveries.

Design themes

If everything the visitor encounters sends out some sort of impression, then it should be designed with specific impressions in mind. To this end, research has uncovered a number of recurring themes that should be adopted as important guiding principles for the design process.

Put simply, they are:

- The world is a complex, fluid system.
- The are no solid boundaries, as the system flows across all regions.
- The South Polar Region is a vital part of a global system.
- Your life is shaped by what happens beyond 40 degrees South.
- The region holds important clues to how the planet works.
- Science is a dynamic, evolving process, not a finished product.
- Exploration is ongoing, and just reaching its most exciting phase.

If these are the messages the Centre wishes to convey, then they provide important springboards for the design team.

1. The exhibition should present the enormous scope of the subject matter in meaningful segments without dissecting the region into separate structures. The content can be layered and themed, but breaking it up into territories would only undermine any attempt to present a fluid, inter-related system.

2. The physical space should convey the affect of the South Polar Region across as many senses as possible so that the public not only see and hear how it works but smell, taste and feel as well.

3. The dynamism of the subject would suggest a constantly animated space as opposed to a collection of static displays. The notion of turbulence and movement should flow through the space, providing the thematic link between one subject and another.

4. If science is an active process then the design must allow for real-time exchange of information and ideas in a living, working environment, one that invites the visitor into a "real" scientific facility.

5. Interaction will be as genuine as possible to create direct and meaningful connections between the individual and the South Polar Region in order to compress the "Psychological gulf" between the two.

6. The Centre will be presented as a gateway, a jumping off point into a larger world. This is not only in the traditional sense of the departure point of Antarctic exploration, but as a "virtual junction" that links a global network of science and research institutions.

4.2 Further Development of Concept

The liaison established during the development phase will continue after the operation of the Centre. The Centre acting as a front window for Southern Ocean and Antarctic research provides scientists with the opportunity to continually update the material and the information provided. This process will ensure displays in the Centre provide prevailing information and ask current questions. It is the intention of the organisers to replace a major part of the exhibit every three years. This will guarantee the Centre remains attractive to local people. Attractiveness will also be heightened by the operation of a temporary gallery which will either purchase or develop temporary displays with an Antarctic and Southern Ocean theme. It is believed sufficient consultancy skills will exist in Tasmania to allow the employment of local people to enhance the development of the Centre after its initial construction.

4.3 Exhibitory

In much the same way as people learn about the human body as a collection of systems - skeletal, muscular, nervous, circulatory, lymphatic - the design process will present the entire South Polar Region as an integrated entity composed of sub-systems that can be explored as complete layers in their own right.

Four such themes have been suggested, and even though they themselves are tightly interrelated, they will allow the management of a wealth of information into digestible segments without dismembering the South Polar Region into static territories. These themes are:

- EARTH CYCLES

Rhythms of heat, light, energy, pressure, ocean currents, air currents, climate, ozone, chemistry etc. The flow of ice, the convection of sea and air, zones of change, of convergence and divergence, the movement of a fluid, turbulent system.

- LIFE CYCLES

Life and death cycles of phytoplankton, insects, plants, fish, birds, mammals etc. Cycles of survival - food, sex, natural selection, etc. The balance of starvation verses freezing, the critical 'windows' for growth, the prolonged periods of dormancy.

- TIME CYCLES

From the orbital dance of day and night, winter and summer, to the slower geological cycles - rock formation, plate movement, ice ages, extinctions, eco-niches, migrations, etc.

- HUMAN CYCLES

Sequential patterns of exploration and territory, of treaty and co-operation, investigation, monitoring and interpretation, the balance of protection and development, the seasonal human population, the ebb and flow of ships and planes and people, the potential cycles of tourism, etc.

These thematic divisions are themselves subdivided into related subjects:

- **EARTH CYCLES**

Exchanges
Carbon exchanges
Heat exchanges
Sea ice

Loops
Deep Water Circulation
El Nino/La Nina/ELSO
Global Climate Variability
Global energy balance
Ocean currents
Sea temperature

Patterns
Glacier processes
Global warming
Greenhouse effect
Kelvin waves
Ozone depletion
Sea levels
Weather systems

Structures
Antarctic continent
  size, shape, geography, geology, palaeontology
Atmosphere
  chemistry, physics, dynamics-weather
Geospace
  magnetosphere
Ice Dome
  accretion, glaciers, floes
Sea floor
  trenches, volcanoes
Southern Oceans
  southern convergence, surface water, mid water, bottom water

Zones
Antarctic Convergence, Antarctic Divergence, Depressions, Great Ice Barrier, Ice Free Zone, Microclimates, Permanent Ice Zone, Seasonal Ice Zone

- **LIFE CYCLES**

Balance
Biodiversity
Biological stocks
Biology and sea temperature
Entrophication

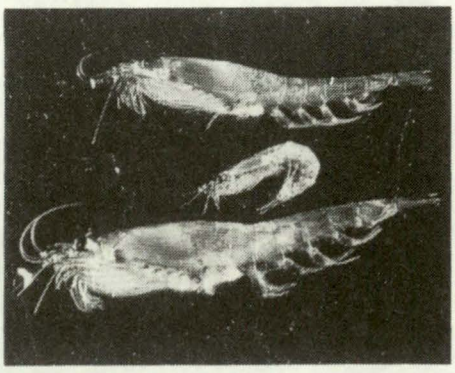
Food
Biomass survey
Econiche
Feeding cycles

Migration/reproduction & growth
Fish
Krill
Microbes
Penguins
Phytoplankton
Sea birds
Seals
Whales
Zooplankton

Shelter
Estuaries
Lakes
Reefs - permanent pack ice
Rocks
Seagrass meadows
Seasonal pack zone

Survival
Isolation
Light
Protection
Temperature

Web
Air
Ecosystem
Land
Sea



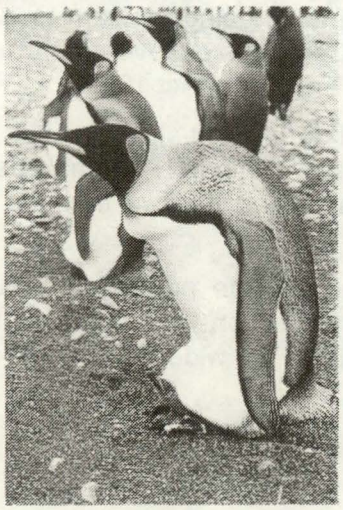
- **TIME CYCLES**

Weeks
Circulation models
Weather models

Months
El Nino/La Nina/ENSO
Midnight Sun
Orbital mechanics
Sea ice processes
Seasons
Southern Ocean processes

Years
Greenhouse
Ice cores and history
Ozone
Sea level
Sea temperature

Eons
Continental drift
Fossil record
Gondwana
Ice Ages
Meteorites
Paleoclimate
Plate Tectonics



- **HUMAN CYCLES**

Exploration
ANARE
Expeditions
Food and shelter
Hazards
Permanent bases
The heroic era

Understanding
Acoustic surveys
Biogeochemical cycles
Circumpolar Current Research
Lambert glacier traverse
Mapping
Oceanographic transects
Remote sensing
Seismic study
Weather model
World Climate Research Program
World Ocean Circulation Experiment

Protection
Commercial fishing monitoring
Environmental studies
Human impact studies
Ice sheet studies
Smart tags
Wildlife monitoring

Co-operation
Antarctic treaty
Information network

Management
Economic Exclusion Zone
Ecotourism
Mariculture
Sub Antarctic Island management

Community life
Alternate energy
Fibre optic network
Health
Jobs and skills
Logistics
Medical research
Population
Power
Schedules and resources
Station management
Transport

Examples of how these concepts might be interpreted are:

- A sub-marine viewing room to watch the movement of whales live in the Southern Ocean and record their sightings on a computer touch screen.
- A simulator which can manipulate the global air temperature and melt the southern icecap to show the impact of temperature on the planet.
- An interactive computer which will test the impact of air, sea, land and man on microbes, fish and mammals in the Antarctic food chain.
- A series of physical and psychological tests for visitors to measure their readiness for Antarctic exploration.
- Remote control cameras linked directly with the subcontinent for a first hand look at Antarctica.
- An interactive Vortex Globe to generate ocean currents and study their effect on sea life.
- Direct Internet access to research bases across the Antarctic.
- A fully operational weather station which enables visitors to prepare their own climate models and forecasts.

5. MANAGEMENT ISSUES

5.1 Operational Policies

There are several options for the operation of the Centre. The management structure will be determined by Government. Options for managing the Centre are the subject of a future Cabinet Minute.

The options range from leasing the Centre as a going concern to a private operator, to the Government operating the Centre as a Government business enterprise under the Government Business Enterprise Act 1995.

It is envisaged the Centre will have an initial permanent staff of seven people. Permanent staff would be: Chief Executive Officer, Personal Assistant, Education Officer, two Shop/Ticket Assistants and the two trainees, initially employed by AAV.

Operation of the Centre would incorporate a large number of volunteers. These volunteers would be trained by the Education Officer "as explainers". The system of utilising voluntary explainers is wide spread throughout science centres and museums.

5.2 Operational Objectives and Strategies

The objectives for the short to medium term operation and development of the Centre are to:

- Attract tourists, residents and schools to visit and through an active, enjoyable and memorable experience, to learn about the Southern Ocean and Antarctica.

- Increase the appeal of Hobart to the family tourist market and to be an international profile tourist attraction.
- Develop a national and international reputation as being an exciting and innovative insight into a unique and remarkable part of the world, comprising Antarctica and the Southern Ocean.
- Be recognised by public and research agencies as the front window into the research effort by Australia and its partners in this part of the world.
- Be recognised as a unique science education resource, integral to the classroom program of all schools.

5.3 Functional Programs

Several functional programs are in the process of being developed to generate revenue for the Centre:

Program 1 - Centre Visitation

This involves a campaign to create early awareness of the development of the Centre. The Exhibition Consultants have generated a list of 203 media outlets throughout Australia who receive current information on the Centre developments. This process has already resulted in early reports in the Australian newspaper and on ABC, with various other articles being included in trade journals.

Tasmanian schools will be targeted when further details are known about the exhibition.

Development of Centre is also advertised through the World Wide Web on the Internet and its status will be available to the public at large. In sighting the Centre at Salamanca the proposers have located it in one of Tasmania's tourist meccas. Statistics show that in excess of 400,000 people per year pass by its entry point already.

The development of the Centre will involve subtle sign-posting which will include a spectacular frontage to attract the people further.

Program 2 - Special Exhibitions

An area adjacent to the reception hall at the front of the building has been set aside for special exhibitions related to Antarctica and the Southern Ocean. Such exhibitions could be either touring exhibitions purchased by the Centre or specific exhibitions to mark a major event, developed by the Centre. Special exhibitions are designed to continue to attract local residents back to the Centre and highlight a significant event or activity.

Program 3 - Shop Purchases

The Centre will have a souvenir and activity shop, related to the exhibition. In similar centres in overseas countries, the shop has generated as much income from merchandise as is generated by entry income. In time the shop will handle mail orders as well as on the spot purchasers. Goods for sale will be non-perishable. The shop will be an integral part of the Centre managed by Centre staff.

Program 4 - Food and Beverage Concessions

Patrons may spend between two and four hours within the complex. Where this occurs it is believed necessary that some refreshments are made available. It is proposed a beverage and light food outlet will be contained within the Centre. Because Salamanca Place has a number of beverage and snack outlets, it is proposed that the outlet in the Centre be subleased to one of the existing business people. This will avoid competition with the Salamanca traders.

Program 5 - Educational programs

The Centre will employ a full-time education officer. Programs will be developed to match the earth science curriculum of schools.

5.4 Business Modeling and Analysis

A business model has been prepared for the Centre development to ensure that its establishment and operation are guided by sound business principles and that the Centre will be self-sustaining in the medium to long term.

The business model makes a number of assumptions based upon information from consultants who have great knowledge of exhibitions. The basic assumptions are that visitor numbers will start at 200,000 p.a. and increase by 50,000 p.a. over the next 10 years. Considering the number of tourists attracted to this State and figures maintained by comparable attractions, these numbers are relatively conservative.

6. PROJECT DELIVERY ARRANGEMENTS

6.1 Introduction

The Agreement to Lease provides for the developer's building team to carry out the design development, documentation and construction of the building shell with some limited provisions for the exhibition. The capitalisation of the rental for the shell meets the cost of these works.

The Agreement also allows for the developer to manage the construction of certain building and engineering elements of the Centre fitout based on tender documentation to be provided by the Government. These works are described as additional works in the Agreement to Lease and the cost of these works are to be met by a direct reimbursement to the developer by the Government.

The exhibition fitout is to be carried out by private contractors paid directly by the Government.

6.2 Building Fitout Works by Developer

The building fitout works comprise those elements of the Centre that need to be completed by the developer before the developer gives access to the building for exhibition fitout purposes.

The exact extent of the building fitout works can only be determined when the exhibition concept has been prepared and accepted but will comprise architectural and general building works; mechanical engineering works and electrical engineering works to the value of $2.50 Million (including fees) as detailed in the cost estimates provided in Section 7 of this submission.

The architectural and general building works will include:

- Mezzanine floor, bridge and stair.
- Administrative provisions on upper level.
- Workshop and store.
- Theatre enclosure and seating arrangements.
- Other minor building works in preparation for the exhibition fitout, as an enhancement of the building shell provisions.

The mechanical engineering works will include:

- Heating, cooling and ventilation systems for the entire Centre, responding to compartmentalisation based on the requirements for separate exhibition spaces, commercial areas, public and amenity spaces and administrative accommodation.
- The provision of heating and chilled water sources for specific exhibits, and the provision of water supplies and drainage at certain locations.

The significant feature of the mechanical plant is the geothermal energy system which utilises the ground beneath the Centre as a heat source and heat sink for heating and cooling respectively. This system provides a considerable saving in energy and attendant running costs. The concept is entirely in keeping with the Centre's overall purpose.

The electrical engineering works comprise:

- Sub-floor electrical ducting systems which are to be incorporated in or below the concrete floor slab to provide the flexibility ultimately required for the exhibition spaces.
- Backbone cabling and sub-board system for the entire Centre, responding to compartmentalisation based on the requirements for separate exhibition spaces, commercial areas, public and amenity spaces and administrative accommodation.
- The provision of general lighting, not including display lighting for exhibits, and the provision of general power outlets in the administrative, utility and public areas, not including the detailed power requirements for Exhibitory.
- The provision of a basic security system, not including video monitors, for the building envelope.

The Agreement to Lease provides for the mechanical and electrical components of the building fitout works to be tendered by the developer, John Fuglsang Developments Pty. Ltd. An appropriate tender process has been established for this purpose. In addition, the price for the building works components of the building fitout works will be formally submitted by the developer and independently assessed by the consultant Quantity Surveyor to ensure that value is obtained.

The Agreement to Lease also provides for design and construction of the building shell to be varied to better accommodate the requirements of the Centre as detailed design of the Building Fitout and exhibition works is finalised.

6.3 Exhibition Works

The design, tendering and contract administration of the exhibition works is the responsibility of the exhibition Consultants, AAV Business Communications of Melbourne who have included local exhibition design specialists on their team and have provided traineeship opportunities for the duration of the project as well.

The exhibition works will commence on completion of the Centre building development works outlined above. The developer has agreed to provide access for exhibition fitout purposes for a rent-free period for this purpose.

The exhibition works, including exhibition space enclosures, finishes and fixtures, and detailed exhibitory will be tendered on a package-by-package basis making the greatest possible use of local specialist designers and contractors.

7. COST ESTIMATES

A detailed cost plan is being maintained for the development to ensure that the building and exhibition works costs are contained within the capital development allowance determined in the business model.

The budget costs are:

Additional Works	
Building elements	$1,165,000
Mechanical services	$ 755,000
Electrical services	$ 300,000
Exhibition fitout works	$3,500,000
Fees	$ 280,000
Total	$6,000,000

The above estimates include fees. They exclude any allowance for escalation costs due to increases in the Building Cost Index (which are expected to be minimal).

Value Management Analysis techniques will be applied to all project packages to analyse all options and confirm those best suited to the Centre's requirements. The analysis process will also serve to confirm that the maximum value for money is being achieved in the detailed design and documentation of specific building and exhibition elements before work on site is commenced.

8. PROGRAM OF WORKS

The critical elements of the program of works are those which impinge on the building shell structure currently being erected by the developer. The location of the Centre, in what is effectively the basement of the Quarry Development, has placed considerable pressure on the consulting team for design details and tender documentation for:

1. Electrical service provisions in the ground beneath the Centre and in the floor slab.
2. The ground loop components of the energy system which will be drilled to a depth of up to 100 metres below the concrete floor slab and must be piped up and tested before the slab is laid.

The key dates are currently:

ELEMENT	ACTIVITY	TARGET DATE
Building Shell and Fitout		
Electrical floor duct provisions	Confirm requirements	10/05/95
Energy system	Complete installation	01/08/96
Other shell structural provisions	Design documentation	28/06/96
Additional works details to developer	Design documentation	01/11/96
Access for exhibition fitout		01/06/97
Exhibition Design and Fitout		
Exhibition Concept	Completion	31/05/96
Exhibition design	Completion	15/07/96
Exhibition documentation/tender	Commencing	01/08/96
On-site installation	Commencing	01/06/97
Testing/commissioning	Commencing	01/10/97
Commercial operation	Commencing	01/12/97

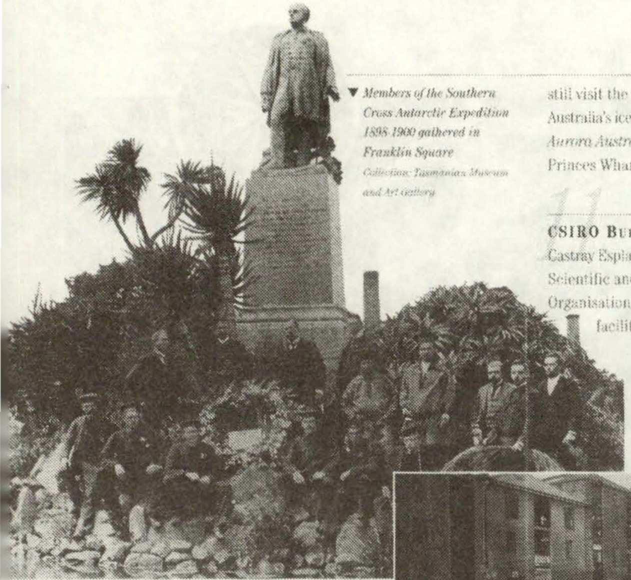
9. CONCLUSION

Development of the Centre is an important State and National project. It recognises the significant management responsibilities Australia has in the Antarctic and Southern Ocean as a result of our national jurisdiction and international obligations. The Centre will provide the means for Australians to improve their understanding of the region and the important role played by Australia.

It will also provide:

- an important focus on Tasmania's prominent and expanding role in Antarctic affairs with resultant benefits for tourism and other developmental outcomes; and
- an educational facility of immediate benefit to the community and provide a learning environment with limitless horizons.

The development is therefore recommended to the Parliamentary Standing Committee on Public Works for its support and approval.

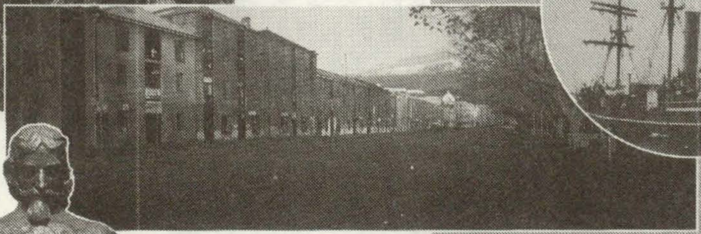


▼ *Members of the Southern Cross Antarctic Expedition 1898-1900 gathered in Franklin Square*
Collection: Tasmanian Museum and Art Gallery

still visit the famous Saturday Market. Australia's ice-class research vessel, *Aurora Australis*, is often moored at Princes Wharf just across the road.

11

CSIRO Building
Castray Esplanade. The Commonwealth Scientific and Industrial Research Organisation offers scientific support facilities for Antarctic expeditions, and its fisheries research vessel, *Southern Surveyor*, regularly spends time in the Southern Ocean.



9

The Abel Tasman Monument
Salamanca Place. This monument commemorates early Dutch navigation in Australian waters. Tasman (after whom Tasmania is named) explored the Tasmanian coastline in *Heemskerck* and *Zeehaen* during November 1642. The sculptor was Stephen Walker.

▲ *Abel Tasman's Monument and Salamanca Place*
Collection: Department of Tourism, Sport and Recreation

10

Salamanca Place
Salamanca Place was a wharf at which early sealers and whalers moored to take on provisions. Many of the sailors lived in nearby Battery Point. Today's Antarctic expeditioners

12

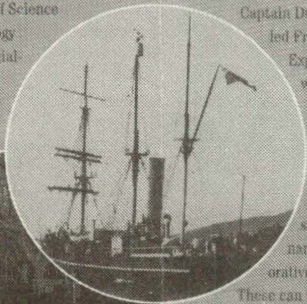
Maritime Museum of Tasmania
21 Secheron Road, Battery Point. This wonderful little museum housed in the elegant *Secheron* (1831) has information on the early days of sealing and whaling.

13

State Library of Tasmania
91 Murray Street. The Crowther and Tasmaniana Libraries on the 2nd floor have excellent material on sealing, whaling and Antarctic expeditions leaving from Tasmania.

Sites Outside Hobart

Institute of Antarctic and Southern Ocean Studies
(10 minute drive south of CBD)
University of Tasmania, Grosvenor Cres, Sandy Bay. In 1988 the University established a centre for research and teaching on polar issues. Research programs focus on Southern Ocean circulation, sea ice, atmosphere, glaciology, ecosystems, and human impact. The Library of Science and Technology contains specialist Antarctic books and journals.



▲ *Douglas Mawson's ship, Aurora leaving Hobart for the Australasian Antarctic Expedition, 1911-1914*
[illegible]

Derwent Sailing Squadron
(10 minute drive south of CBD)
Marieville Esplanade, Sandy Bay. While Amundsen was in Hobart during March 1912, he was elected as an honorary member of the DSS. The club possesses the letter that Amundsen wrote thanking them for this honour and it is possible to view the letter by contacting the Club Manager.

Royal Tasmanian Botanical Gardens
(5 minute drive north of CBD)
The Botanical Gardens have developed a plant display within the Tasmania Alpine and Sub-Antarctic House. This cold house is the only one of its kind in the world and it features the flora of Macquarie Island.

Hobart Crematorium and Cemetery
(10 minute drive north of CBD)
Queens Walk, Cornelian Bay. There is a memorial here to the sailors of the Captain Dumont d'Urville led French Antarctic Expedition (1838-1840) who died either at sea or in hospital in Hobart between July 1839 and February 1840. There is a marble slab with the sailors' names and a commemorative rose garden.

These can be found by taking the first turn right upon entering the cemetery then second left.

St Albans Anglican Church
(20 minute drive north of CBD)
56 Main Road, Claremont. This church has a stained glass window with a polar motif. The window was donated in 1914 by Mrs Edith Knight who was a close friend of Captain Scott's sister.

Australian Antarctic Division
(20 minute drive south of Hobart)
Channel Highway, Kingston. This is the Division that has responsibility for Australia's presence on the Antarctic continent and sub-Antarctic islands. At the entrance a sculpture depicts life on an ice floe. There is a museum and library, both of which are open to the public.

Adventure Bay, Bruny Island
(90 minute drive and ferry south of Hobart) Here in the island's south-east, the vessels of several early expeditions into the Southern Ocean dropped anchor: Tasman (1642), Cook (1773, 1777) and Bligh (1792). There is a small museum nearby that has a collection of relevant books and artifacts.

▲ *Aurora Australis* [illegible]

Office of Antarctic Affairs
Department of Tourism, Sport and Recreation
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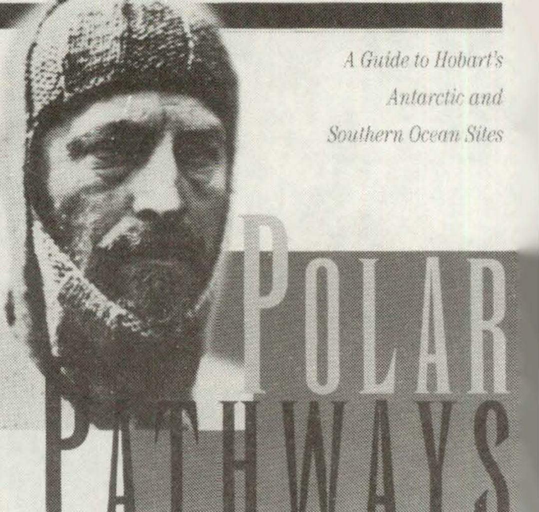
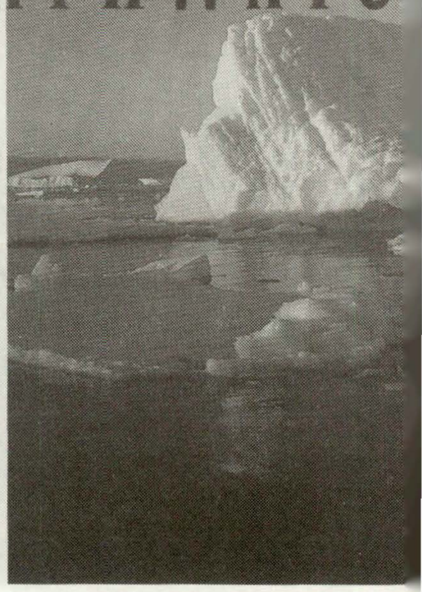
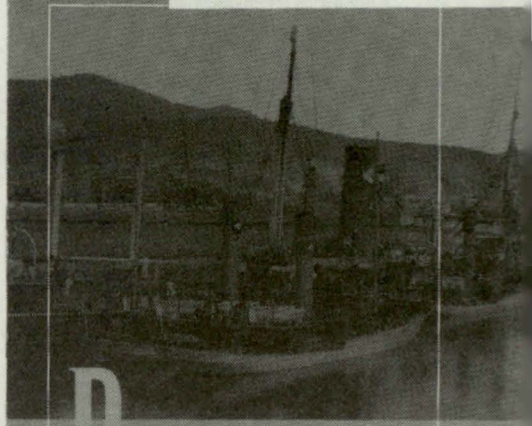


Polar Pathways

A Guide to Hobart's Antarctic and Southern Ocean Sites





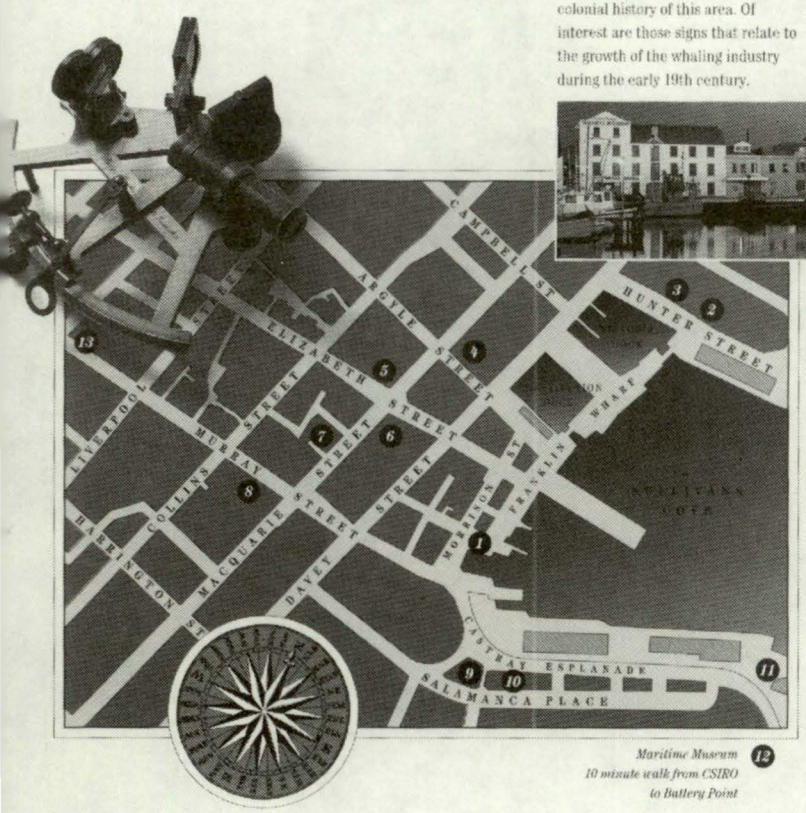
POLAR PATHWAYS *welcomes you to explore some of Hobart's unique Antarctic and Southern Ocean sites. Hobart established itself as a safe port for refitting sealing and whaling ships during the early 1800s. The polar connection was firmly established when the port was used for resupplying scientific and exploratory expeditions to the Antarctic continent. Hobart's involvement with Antarctica increased in the 20th century when issues of environment, science and sovereignty became more prominent.*

WATERMANS DOCK
Here at the corner of Brooke and Morrison Streets there are excellent interpretation signs that explain some of the history of the Sullivans Cove area. Especially interesting is the *Gateway to the World* sign which stresses Hobart's strong and enduring economic links with the Southern Ocean.

HUNTER STREET
Just to the east of the swing bridge was the old Queen's Wharf from which *Aurora* (Mawson's Australasian Antarctic Expedition, 1911-1914) departed for the Antarctic. Across the swing bridge to Hunter Street there is a memorial celebrating 150 years of European settlement and the interpretation signs detail the very earliest colonial history of this area. Of interest are those signs that relate to the growth of the whaling industry during the early 19th century.

25 OLD WHARF
This sandstone building houses the international Commission set up for the Conservation of Antarctic Marine Living Resources. Annually the member nations meet in Hobart to discuss the management of marine resources in the context of the Antarctic ecosystem.

▼ *Hunter Street from Constitution Dock*
Collection: Department of Tourism, Sport & Recreation



Maritime Museum 12
10 minute walk from CSIRO to Battery Point

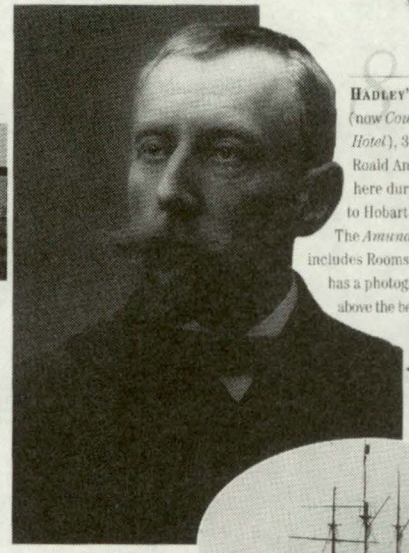
TASMANIAN MUSEUM AND ART GALLERY
Located at 40 Macquarie Street, the museum maintains a collection of Antarctic and Southern Ocean displays and artifacts. These include whaling gear of the 19th century and Antarctic expedition equipment.

HOBART GENERAL POST OFFICE
On 8 March 1912 from this Post Office, at the corner of Macquarie and Elizabeth Streets, Roald Amundsen sent the telegram that told the world he had been to the South Pole. His vessel *Fram* anchored in the Derwent River off Long Point, Sandy Bay for the duration of the Norwegians' stay in Hobart.

FRANKLIN SQUARE
The statue by the fountain is of Sir John Franklin who was the Governor of Van Diemen's Land (1837-1843) and a polar explorer who lost his life trying to discover the 'Northwest Passage'. The interpretation signs contain information about and photographs of members of the 1898-1900 Antarctic Expedition led by Carstens Borchgrevink. This group wintered at Cape Adare during 1899 (the first scientific party to do so) and they returned to Hobart in April 1900. The party included a Hobart scientist, Louis Bernacchi, as physicist.

RESERVE BANK
111 Macquarie Street. The lifesize bronze sculpture of penguins, seals and skuas was completed in 1984 by the Tasmanian artist Stephen Walker.

Norwegian whaling ship ▶
Nielson Alonso with two tenders at Hobart Wharf, c1939
Collection: W L Crowther Library, State Library of Tasmania



HADLEY'S ORIENT HOTEL
(now *Country Comfort Hotel*), 34 Murray Street. Roald Amundsen stayed here during his brief visit to Hobart in March 1912. The *Amundsen Suite*, which includes Rooms 201 and 202, has a photograph of Amundsen above the bed in which he slept.

◀ *Roald Amundsen (1872-1928)*
Collection: Australian Antarctic Division

▲ *Amundsen's barquentine Fram anchored off Sandy Bay, March 1912*
Collection: W L Crowther Library, State Library of Tasmania