



Skeletons Exhibition Audience Research Project

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1 Introduction to research project

As part of the review of the Museum Renewal Project it was considered that research needed to be undertaken into visitor response to the *Skeletons* exhibition.

This study aimed to understand the background to the exhibit, what was originally intended to be its aims and messages, how this exhibit is viewed now by visitors, and how well it meets the Museum's current criteria.

The study was undertaken from the 22nd Feb 2005 to the 9th June 2005 by Julian Foot and Ana Sol, volunteers.

The research method used visitor interviews covering reaction to and experience of the exhibition; individual exhibits and the exhibition's place within the Museum. As well visitors in the exhibition were tracked and their pathways, where they stopped and how long they spent noted.

2 Background to the space and exhibits

2.1 How was the space originally conceived and used?

Until the installation of the current exhibit The Long Gallery held a series of Dioramas constructed between 1922 and 1937, the Long Gallery also held The Bird of Paradise Display and a Platypus Diorama. In the view of the then Deputy Director H G Cogger in a memo dated the 5th July 1989, this display represented an essential record of museum and social history. Due in part to his intervention The Lord Howe exhibit was retained in the redevelopment of the space.

The *Skeletons* exhibition was relocated to this space from elsewhere in the Museum sometime in 1990.

2.2 What were the origins of the Skeletons exhibition?

2.2.1 The initiation document for the Skeleton exhibition dated from the 13th December 1988. (Appendix A)

The objective was to present an uncomplicated display of vertebrate structure to show diversity of form and function.

The target audience included Tertiary Students, particularly art students, as well as the general visitor.

In addition the Initiation Document highlighted the following:

Special Spatial Significance

The exhibition has been allocated to the Long Gallery to enhance the special architectural qualities of the space. The Victorian ambience, the volume of the vertical space and the interaction from the floors above are all important considerations to be acknowledged and assimilated with the design solution.

2.2.2 The Development Proposal was created in March 1989 aiming for completion in August 1990:

This contained the following:

DRAFT OF PROPOSED CONTENTS by T.F. Flannery

It is proposed that two major themes be woven through this exhibition:

- Adaptations as reflected in skeletons
- Function and diversity of skeletons

Other, minor themes, such as evolutionary relationships, extinction, and the development and maintenance of skeletons, can be interwoven where appropriate.

Explanatory labels are to be brief, and minimal in number. Context and material should tell as much of the story as possible. To achieve this, skeletons and associated material will be divided into adaptational types, these being exhibited in related areas of the gallery. A third unit, comprising interactives, will provide additional information about bones.

The adaptational types will be:

- LIFE ON THE WATER
- LIFE ON LAND
- USE OF BONES

EDUCATION ASSESSMENT by Greg Ebeling

This gallery will be a major education resource on the adaptations of animals to water and land environments. It will also be important in:

- increasing visitors' knowledge of skeletons,
- stimulating visitors' inquiry and discovery attitudes,
- stimulating skills such as observing, comparing, classifying, measuring, inferring, recording and researching.
- making children aware of the variety and types of skeletons and their comparative structure.

The gallery will also be used extensively by tertiary students of art and related areas. School pupils of all ages will benefit greatly from the gallery, as it suits most areas of the science curriculum, K-12.

2.2.3 The Report to the second referral group is dated the 31st October 1989:

This gave further details on the interactive displays to be used in the exhibition:

1. Whale Skeleton

The original proposal was to include a large whale: half skeleton, inside which vital organs would be displayed to show their dependency on the skeleton for support and protection, and half body-model. This was not approved.

It is now proposed that a dolphin model be used for the same purpose. The cost of materials would be approximately \$3000 and the model could be built in-house by one preparator.

2. Interactive Displays

Several ideas were submitted by interested Museum staff members; of these, three have been selected as being suitable.

- a. Computer game
- b. Exercise cycle: The visitors' action of pedalling will be synchronously duplicated by a human skeleton within the display area. Other primate skeletons will be displayed here, together with the question:
- 'What other animals have skeletons that would permit them to copy this pedalling action?'
- c. Bone Stress: By the use of polarized light, the stress placed on a particular bone will be demonstrated. The visitor will be able to manipulate the type and amount of stress.

3. Birds

Display areas 5 & 6 will be devoted to bird skeletons

4. Text

Generally, text within display areas will be kept to a minimum, i.e., titles of grouped types and specimen labels. However, three areas have been selected in which text, illustrations and photographs will describe evolutionary adaptations and developments. These areas are: Mammals, Birds and Reptiles.

Information concerning the purpose, construction and properties of skeletons will be given in the introduction area of the exhibition.

2.3 How has this changed over time?

At some stage the original point of access to the exhibition changed from the entrance by the cafe to the opposite end of the room. This now means that most visitors enter the exhibition half way through the narrative.

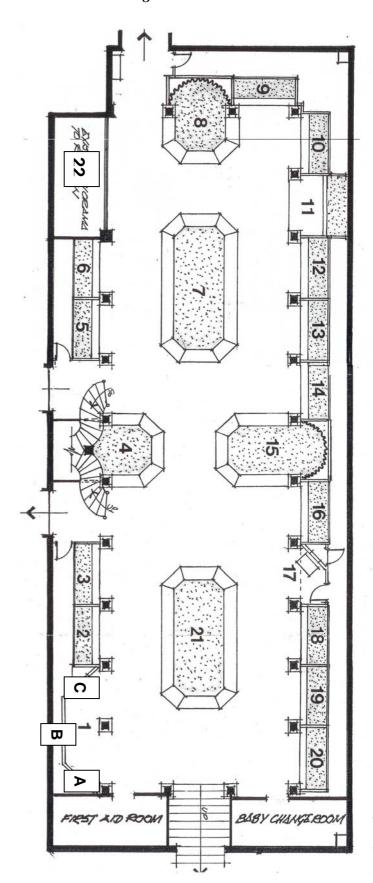
The Computer interactive seems to have ceased to function at some stage and been replaced by the touch activity station.

2.4 The Exhibition Layout

Figure 1 shows the layout of the exhibition.

- 1. General Introduction including:
- A: Video
- **B:** Introduction
- C: Bone Stress interactive
- 2. Mammal Common Dolphin with internal organs
- 3. Mammal Seal, Dugong
- 4. Open display Home Sweet Home.
- 5. Birds Adaptation/evolution.
- 6. Birds. Emu
- 7. Open display Elephant
- 8. Open display Giraffe, Ostrich
- 9. Mammals Giving Birth: Monotremes and Marsupials.
- 10. Mammals Marsupials, Kangaroo
- 11. Bicycle interactive with primates.
- 12. Mammals Carnivores: Hyena, Fox, Badger, Dingo
- 13. Mammals Carnivores: Cat, Lion, Leopard, Raccoon
- 14. Mammals Herbivores: Boar, Goat, Sloth
- 15. Open display Horse and rider The Bone Ranger'.
- 16. Reptiles Adaptation/evolution: Amphibians, Crocodile, Snake.
- 17. Touch Exhibit
- 18. Reptiles Turtle Python.
- 19. Fish Marlin, Remora.
- 20. Fish Grouper, Dogfish.
- 21. Open display Cetaceans: Sei Whale, Pilot Whale.
- 22. Lord Howe Island Exhibit

Figure 1.



3 Methodology

3.1 Interviews: The Skeletons Survey

Interviews were undertaken weekdays during March (pre- school holidays) and April (school holidays) 2005. A total of 150 interviews were conducted with results summarised at Appendix B. At the same time as the *Skeletons* survey was conducted an exit survey was undertaken of general visitors to the Museum which has been used for comparison where relevant.

As the demographics are similar to the April 2005 Exit Survey it is considered that this sample is representative of usual Museum visitors. Where there was variation this is outlined below.

Of the *Skeletons* sample 49% had previously visited the Australian Museum compared with the April 2005 exit survey where 67% had visited before. Compared with the Exit Survey most respondents came from Sydney with a smaller proportion from overseas and greater spread of visitors from NSW and other states.

	Skeletons	Exit Survey April 2005	
Sydney	37%	53%	
Overseas	18%	28%	
Newcastle/Canberra/Wollongong	17%	4%	
Interstate	15%	5%	
Other NSW	13%	8%	

When asked who the interviewee came with, the main difference is that more people visited by themselves in the *Skeletons* survey. This may be due to some of the survey taking place outside of school holidays.

	Skeletons	Exit Survey April 2005
With family	51%	59%
By yourself	21%	11%
With spouse/ partner	13%	13%
With friends	11%	10%
With family & friends	3%	4%
Part of organised group or tour	1%	2%

Similar to the April 2005 Exit survey the Skeletons survey has a female skew.

	Skeletons	Exit Survey April 2005	
Female	59%	58%	
Male	41%	40%	

3.2 Tracking Study

The tracking study of the *Skeletons* exhibition was performed on weekdays during March (pre- school holidays) and April (school holidays) 2005. A total of 100 observations were conducted, 51% female and 49% male

The path taken through the space was recorded on an outline map of the exhibition. Gender, approximate age and visitor group were recorded on the form, as well as the time spent in the exhibition (Appendix C).

Visitor behaviour at each exhibit was recorded according to the following interactions key:

Ignore: Visitor passes within 2 metres of exhibit but fails to attend or skim

Skim: Visitor looks briefly at exhibit details but does not stop to attend

Attend: Visitor stops at exhibit with both feet still for at least 2 seconds

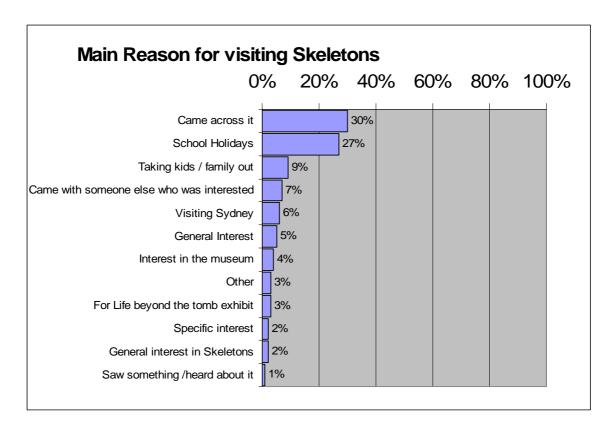
Engage: Visitor is clearly active and intently reads or uses exhibit

4 Results

4.1 Motivation for visit

Although a larger number of survey respondents visited for the April school holidays, the main motivation for visiting the exhibition was due to it being first on the visitor route, visitors "came across it" without any specific motivation to visit the exhibition. Similarly the 2nd, 3rd, and 4th, most popular answers were also unmotivated.

12% of respondents expressed a specific interest in the exhibition or came with someone who did have an interest.



4.2 Entering the Exhibition

According to the tracking data, visitors' use of the exhibition was determined mainly by the entrance they used and the immediate "pulling power" of an individual exhibit. The entrance and exit points are highlighted in Figure 2 below.

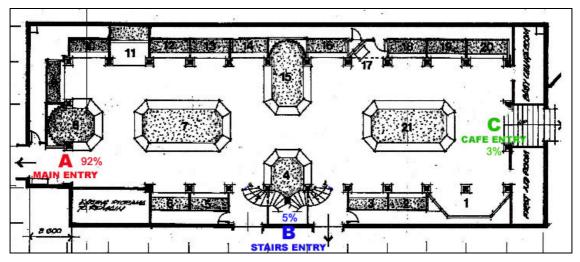


Figure 2. Main points of entry

The *Self-guided tour* map, provided to visitors by the Museum, highlights the *Skeletons* main entry **(A)** as part of the recommended visitor route. The stairs entry **(B)** is shown as an exit from *Skeletons* to access the next gallery.

Few visitors noticed the entry through the Museum Cafe **(C)**. These doors are kept closed most of the time and tended only to be used by visitors on the rare occasions when they had been left open by a member of staff.

In summary:

- 92% of visitors entered through the main entry (A), 5% entered through the stairs (B) and 3% entered through the cafeteria door (C).
- 42% of visitors exited through the main entrance (A), 54% exited through the stairs (B) and 4% exited through the cafeteria door (C).
- 42% of visitors entered and exited through the same doorway.
- On entry 78% of visitors moved to their left and 22% moved to their right.

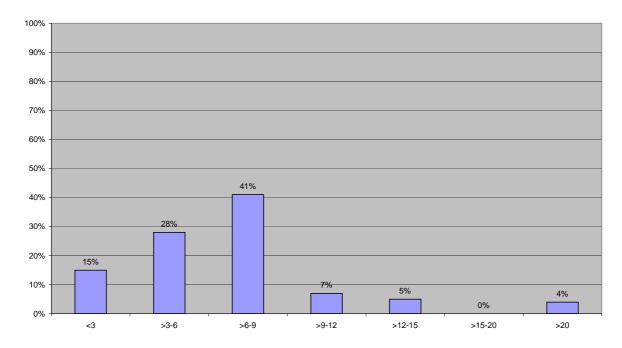
4.3 Time spent

- The longest time a visitor spent in Skeletons was 25 minutes and 36 seconds.
- The average time for all visits recorded was 7 minutes and 46 seconds.

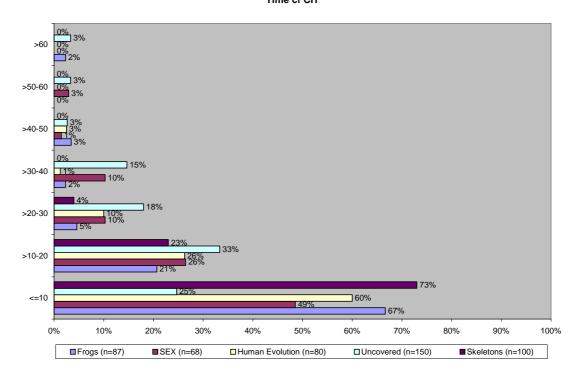
Time in minutes	%
<3 >3-6 >6-9 >9-12	15
>3-6	28
>6-9	41
>9-12	7
>12-15	5
>15-20	0
>20	4

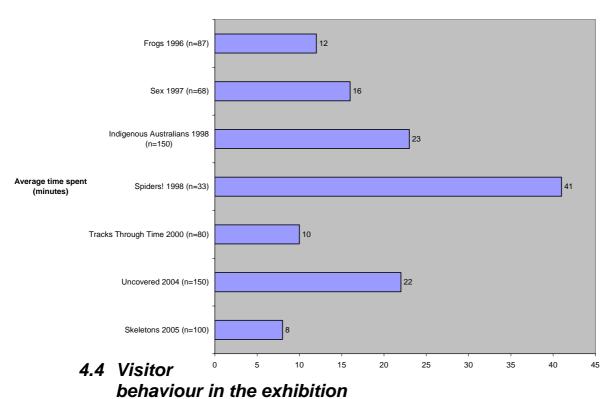
See charts below.

Time spent in exhibition (n=100)



Time cf CH





- 18% of visitors went from entry straight to the exhibit "Bicycle interactive" (number 11 on Figure 1). Of those, 50% kept going in sequential order and 50% went to other exhibits at random.
- 12% of visitors went from the entry straight to the exhibit "Home Sweet Home" (number 4 on Figure 1) Of those, 25% kept going in sequential order and 75% went to further exhibits at random.
- 15% of visitors went from the entry straight to other exhibits at random. Of those, 13% then moved in sequential order and 87% continued to move randomly to a few more exhibits.
- The remaining 55% took a route following the displays in a sequential order from their point of entry. (See Figure 3)

4.5 Tracking Patterns

Numerous patterns were tracked on visitors' pathways that can be split in two groups: the 3 *regular patterns* that followed exhibits in order, the backtrack patterns moved randomly.

79% of visitors moved in a regular pattern. Of those, 65% moved in an **O** pattern (Figure 3), 15% in a figure **8** (Figure 4) and 20% only visited half of the gallery by going round one end (Figure 5). 21% of visitors moved in seemingly random *backtrack* patterns (Figure 6).

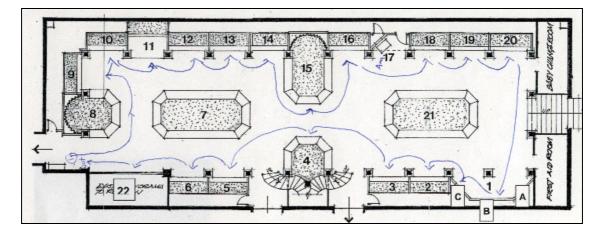


Figure 3. Regular O pattern

Figure 4. Regular 8 pattern

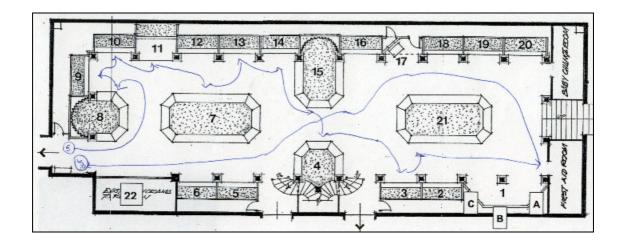


Figure 5. Regular halfway pattern

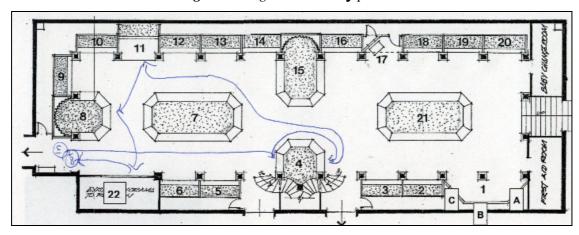
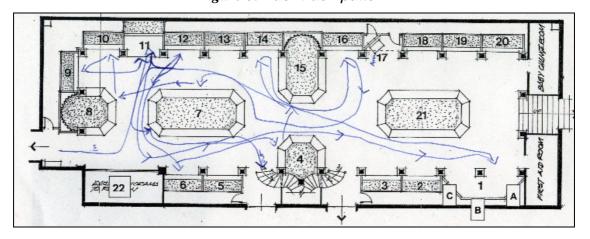


Figure 6. Backtrack pattern



4.6 Most and least engaging exhibits

The top five most engaging exhibits according to the interaction key of *Engagement* (visitor is clearly active and intently reads or uses exhibit) were as follows (the numbers in brackets refer to the numbers on the plan):

- a) 62% Engaged with Home Sweet Home (4).
- b) 59% Bicycle interactive (11).
- c) 54% Horse and Rider, Bone Ranger (15).
- d) 53% Reptiles / Python (18).
- e) 53% Reptiles / Crocodile (16).

The top five least engaging exhibits according to the interaction key of *Ignore* (visitor passes within 2 metres of exhibit but fails to attend or skim) were:

- a) 67% Ignored the video (1A) & Lord Howe Island diorama (22).
- b) 65% Birds / Emu (6).
- c) 61% Birds / Adaptation Evolution (5).
- d) 58% Bone stress interactive (1C).
- e) 50% Intro panel / Endoskeleton (1B).

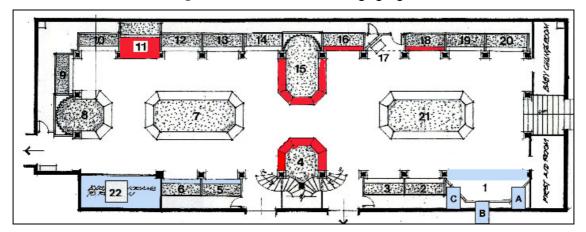
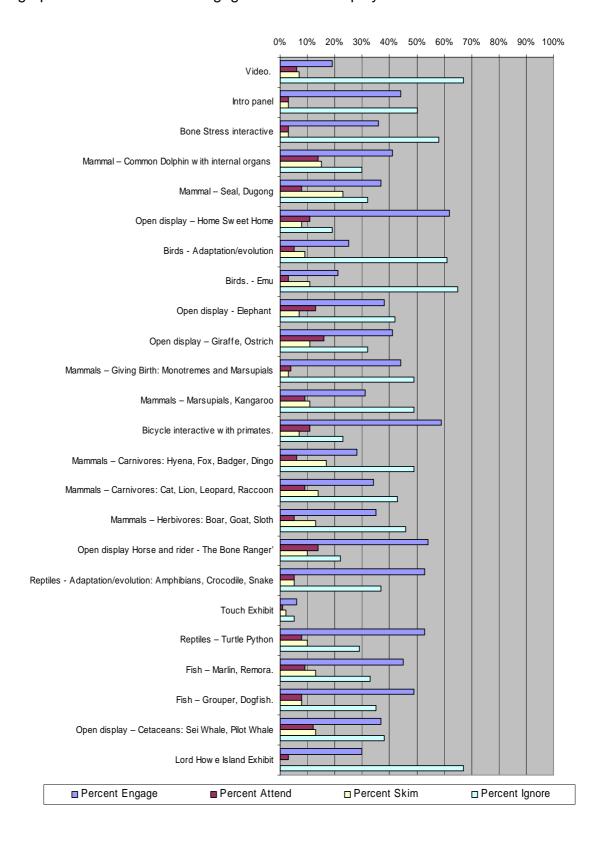


Figure 7. Most and least engaging exhibits

4.7 Visitor engagement graph

This graph shows how visitors engaged with each display in the exhibit.



4.8 Gender specific behaviour

The following table shows the most and least engaging exhibits by age and gender.

	Adult		Teenage		Child	
	Male (n=28)	Female (n=29)	Boy (n=8)	Girl (n=9)	Boy (n=13)	Girl n=13)
Engaged	Horse and Rider, Bone Ranger (15), Home Sweet Home (4)	Home Sweet Home (4) Giraffe & Ostrich (8)	Bicycle interactive (11) Horse and Rider, Bone Ranger (15)	Bicycle interactive (11)The rest had an average of 4% or less of engagement	Horse and Rider, Bone Ranger (15) Home Sweet Home (4)	Home Sweet Home (4) Bicycle interactive (11)
Ignored	Video (1A), Bone stress interactive (1C),Lord Howe Island	Video (1A), Birds, Adaptation Evolution (5) and Lord Howe Island (22)	Bone stress interactive (1C) Birds, Adaptation Evolution(5) ,Birds & Emu"(6)	Video (1A), Birds, Adaptation Evolution (5) and Birds & Emu" (6)	Marsupials & Kangaroo (10) Video (1A) and Lord Howe Island (22)	Birds & Emu (6) Birds, Adaptation Evolution (5)

The following behaviour patterns were observed during the Interviews and tracking study.

Parents with small children (about 3 to 6 years) guided them through the exhibition and they engaged with the exhibition together. One father responded in the interview that the most interesting thing for him in the exhibition was "watching my boy get interested in something".

On entry some children tended to go at random to the most attractive exhibit and, when finished, were guided by their parents to attend the remaining exhibits.

Parents with older children (about 7 to 12 years) followed or waited for them. These parents did not really attend to the exhibits and engaged less with their children who seemed to set their own priorities.

Adults with no children took more time to attend the exhibition, engaging in almost all exhibits. However, during school holidays they avoided the exhibits where a lot of children were gathered.

Teenage boys were the most unpredictable visitors. They didn't attend the whole exhibition, they just went from one exhibit to another (the most attractive ones).

It was noticed that children and teenagers enjoyed taking photos and being photographed with the skeletons.

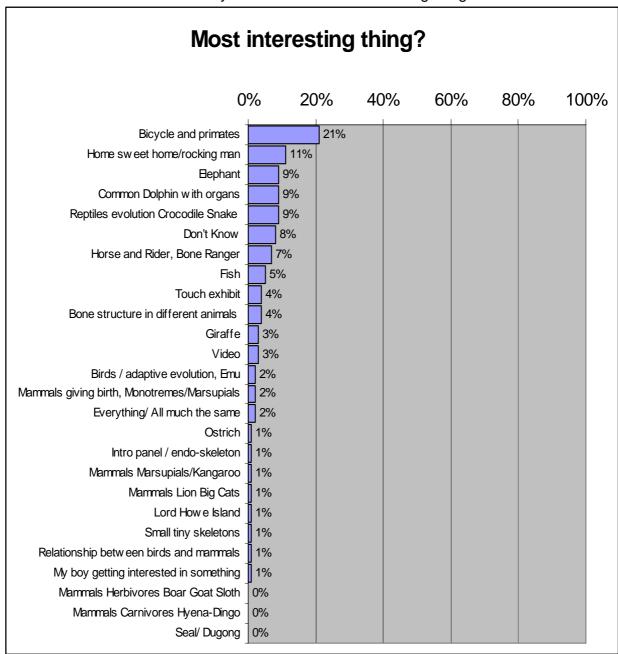
Some children visited the *Skeletons* exhibition because they were doing a game from *The Life Beyond the Tomb* exhibition (looking for hints). At first, they didn't look interested in *Skeletons*; but eventually they became engaged with it.

When the touch activity station was open, visitors showed interest and got involved in the "hands on" activities.

It was noticed that the exhibition seemed to be popular with art students but further visitor counts would need to be undertaken to test this.

4.9 Most interesting thing

Visitors were asked in the survey to name the most interesting thing in the exhibition.

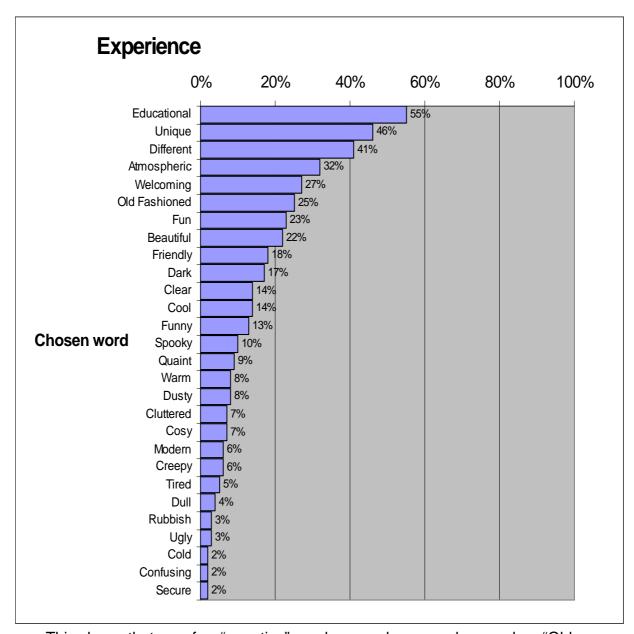


This correlates with the level of engagement revealed in the tracking study showing the overall top exhibits were

- Bicycle
- Bone Ranger
- Home Sweet Home
- Reptiles.

4.10 Visitor Experience

Visitors were asked to choose from a selection of 25 words **five only** that best described their experience of the Exhibition.



This shows that very few "negative" words were chosen and even when "Old Fashioned" was selected in the majority of instances it was in a positive way which was more closely aligned with "Quaint" in meaning. Most respondents considered that they were learning something, even if they were not sure what it was.

4.11 Feedback

The majority of visitors (69%) would recommend the *Skeletons* exhibition to others as a must-see exhibition at the Museum 22% were unsure, and 9% said no.

In addition 79% of visitors felt it would matter to them **personally** if the Museum did not have a *Skeletons* exhibition, 11% were unsure, and 10% said no.

It was noticed that many visitors responded quite emphatically to this question stating that in their opinion "a Museum **should** have a *skeletons* gallery". This was also emphasised up by a feeling of "emotional connection" to this particular exhibition something constant that they experienced as a child and could be passed on to their children and grandchildren. In addition the exhibition seemed in some way to match the public expectation of "what a Museum should be like", and something constant in a world of continuous rapid change.

Children in particular described the space as "Cool" and received a thrill in seeing a human or animal skeleton for the first time.

Visitors were asked to respond to a set of statements relating to the physical aspects of the exhibition if they agreed or disagreed. Visitors answered as follows. Shaded areas represent the highest result.

	Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
The exhibition had a logical flow	5%	55%	23%	14%	1%	2%
There was too much written information in the exhibition	1%	10%	27%	53%	9%	1%
I enjoyed talking to the staff in the exhibition (n=40)	20%	68%	12%	0%	0%	0%
There were parts of the exhibition that were hard to read.	2%	19%	23%	50%	6%	0%
The "hands-on" activities improved my understanding of the content (n=112)	10%	66%	17%	7%	0%	0%
The layout was confusing	1%	13%	39%	43%	3%	0%
I could see everything I wanted to see	9%	71%	17%	2%	1%	0%
I could hear everything I wanted to hear	5%	51%	25%	12%	2%	5%
The exhibition was physically comfortable	12%	53%	29%	3%	3%	1%
The video was too long (n=72)	5%	34%	38%	21%	0%	0%

The majority of respondents considered that the Exhibition had a logical flow (60%) and was physically comfortable (65%). 14% were confused by the layout, but the majority considered that the panels were easy to read (56%) and could see (80%) and hear (56%) everything they wanted to.

Out of the 150 respondents 40 spoke to a staff member whilst in the exhibition all of these were involved in interaction with the staff on the handling exhibit. 88% enjoyed talking to staff, and there were no negative comments about staff interaction.

The hands on activities (the bike and bone stress exhibit) were used by 75% of visitors

(n=112). The remaining 25% either did not understand the definition of "Hands On" exhibit or did not notice them. 76% of those that responded found the exhibits did add to their understanding.

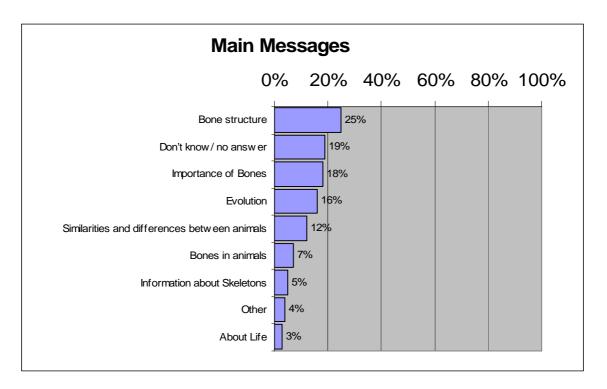
Similarly 52% (n=72) of respondents did not notice the video. Of those that did,40% considered the video to be too long.

A question was asked about how visitors felt they had learned anything during their visit to the *Skeletons* exhibition, which visitors' answers below. Shaded areas represent the highest result.

	Yes a lot	Yes somewhat	No not really	Not at all	N/A
I discovered things that I didn't know	24%	60%	13%	3%	0%
I learnt more about things I already knew	15%	54%	29%	3%	0%
I remembered things I hadn't thought of for a while	17%	49%	29%	3%	1%
I shared some of my knowledge with other people	14%	29%	35%	14%	9%
I got curious about finding out more about some things	15%	49%	31%	4%	0%
I was reminded of the importance of some issues	8%	48%	39%	3%	2%
I got a real buzz out of what I learnt	13%	40%	43%	3%	1%
It was pleasant to be reminded and to learn more	23%	68%	7%	3%	0%
It was all very familiar to me	1%	40%	51%	7%	1%
Some of the things I learnt will be very useful to me	9%	45%	39%	7%	1%

Most visitors found the exhibition a rewarding experience; however 43% would not describe their learning experience as giving them a "Buzz" but rather 90% found the experience pleasant even though 46% did not think what they learnt would be very useful.

Visitors were asked what the main messages the exhibition is trying to communicate, the answers were as follows.



As mentioned in section 2 above the Exhibition when originally conceived was to present the themes of Adaptations as reflected in skeletons, and Function and diversity of skeletons

81% of respondents received a variety of messages from the exhibition, 19% (1 or 5) reported that they did not get any messages from the exhibition.

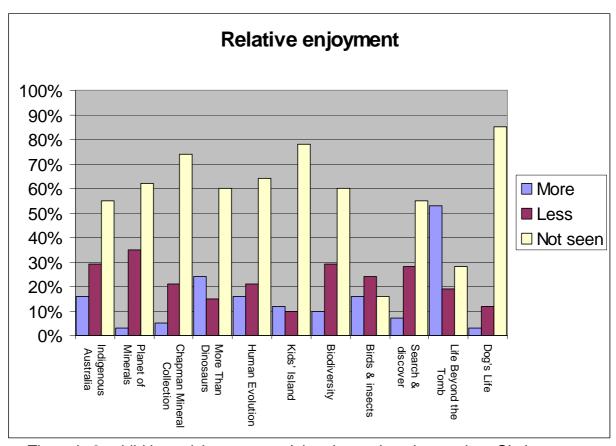
The communication of a clear message is not helped by the change in the main point of entry from the cafeteria to the opposite end. This has made the three original introduction panels fall out of sequence and become less attractive and attended by visitors.

4.12 Where Skeletons fits in the visitor experience

Of the 150 respondents 61% had not visited another exhibition before this one 39% had.

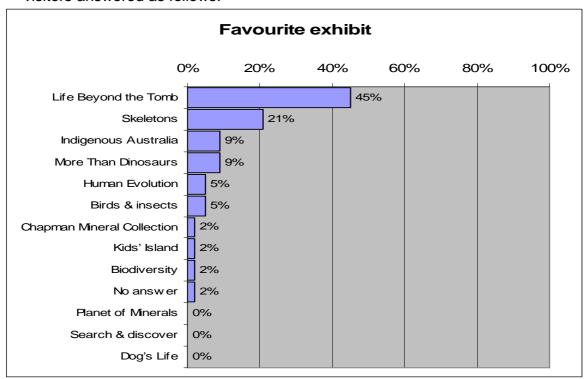
This reinforces the importance of the *Skeletons* exhibition as this is where the first impressions of the Museum are created and visitor expectations met or exceeded (or not!).

Of the 58 respondents who had seen other exhibitions, they were asked if they enjoyed the other exhibitions more or less than *Skeletons*. The relative enjoyment of *Skeletons* is outlined as follows.



The only 2 exhibitions visitors reported that they enjoyed more than *Skeletons* were *More than Dinosaurs* and the temporary exhibit *Life beyond the Tomb.*

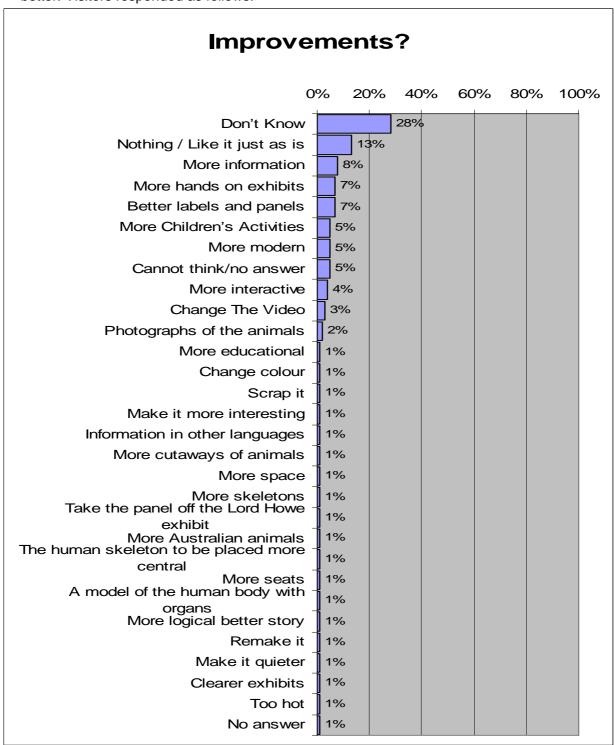
When asked to specifically in the *Skeletons* survey to name their favorite exhibition visitors answered as follows:



So, even if visitors enjoyed *More than Dinosaurs* to a greater extent than *Skeletons*, it does not match its popularity as the favourite permanent exhibit of most visitors.

4.13 Improvements

When asked if the Museum were to change the exhibition what could be done to make it better. Visitors responded as follows:



28% of respondents could not think of any way to improve the exhibition when put on the spot, and a further 13% were very definite in liking it just the way it is.

One woman said "its perfect why change it?"

The 5% who "cannot think/no answer" were different to the "don't knows" in that they could not really be bothered to think of an answer rather than being "stumped".

In addition the majority of visitors who did offer ideas for improvements qualified their suggestions with a desire "not to spoil what makes it so special".

Some of the other suggestions were to have more of what they really enjoyed in the exhibition. For example, some of the "more interactive" and more "hands on" replies were looking for "another display like the bike" or "more things to touch".

4.14 Summary

Skeletons is the most popular permanent exhibition for visitors. It was described as being educational, unique, different, atmospheric and welcoming.

The exhibition has a strong connection with visitors 79% considered that it would matter to them personally if there were no *Skeletons* exhibition. When asked for what improvements could be made 28% of respondents could not think of any way to improve the exhibition, and a further 13% were very definite in liking it just the way it is. One woman said "Its perfect, why change it?"

From observation and visitor comments the exhibition seems to fit with the preconceived idea of "What a Museum should be like". The gallery is something "Museums should have" and in a world of rapid unsettling change is a constant that generations of visitors (from Australia) can share with their descendents and reexperience the wonder they felt seeing it for the first time.

Children in particular described the space as "Cool" and received a thrill in seeing a human or animal skeleton for the first time (in the flesh, if you forgive the pun!).

The exhibition was described as "educational", with visitors receiving a variety of messages, however 19% received no message at all. The most popular responses were vague comments about "bone structure", "the importance of bones" and "evolution". The communication of the educational messages has been disrupted by the reorientation of the entrance away from the café end, with visitors now entering halfway through the sequence of displays. This does not seem to have had much impact, however, on the enjoyment of the exhibition.

The most popular displays are the Bicycle and Home Sweet Home, with 30% of visitors being drawn to these displays as soon as they enter. Most visitors moved in a clockwise direction engaging with most displays. The least engaging displays were the video and Lord Howe Island diorama.

The Exhibition provided good opportunities for interaction between parents and young children.

4.15 Recommendations

- Maintain the current ambience
- Decide what the key message / messages are about skeletons the museum wants to communicate
- Emphasise the link between animal and human skeletons
- Re write the text in line with the above and with the current order of the exhibits
- Replace the introductory panels with a new interactive
- Turn the whales around so that they face the current entrance
- Introduce additional text on the history of some of the exhibits
- Introduce photographs of what the animals look like
- Decide what is to be done with the Lord Howe Exhibit

Report prepared by Julian Foot and Ana Sol, with input from Lynda Kelly 9 June 2005

Appendix A

INITIATION DOCUMENT December 1988 SKELETON GALLERY

Type Permanent exhibition with an expected duration of 10 years

Title_ Gallery"

Objective _

To present an uncomplicated display of vertebrate structure to show diversity of form and function. Sub themes such as adaptive characteristics etc. can be identified. Exhibits to be grouped in a scheme readily understandable to the visitor, perhaps avian, terrestrial, amphibian and marine.

Audience

Apart from the general Museum visitors Tertiary Students have traditionally used this resource, particularly Art students who require room to draw.

Specimens

Generally specimens should be those already in existence and a large program of new skeleton preparation should not be envisaged. Specimens of local origin should be given priority and exotic, foreign or extinct material only used if needed to support specific elements of the 1objective. Similarly a major program of re—articulation of skeleton material is not envisaged but it is understood that many existing stands and mounts should be replaced because of their poor appearance.

<u>Labels</u>

A label 'system' is to be designed specifically for this exhibition. It is to address the problems of label proliferation, legibility and production. A prototype will be tested.

Liahtina

The potential for dramatic lighting is to be exploited within carefully resolved conservation requirements.

Special Spatial Significance

The exhibition has been allocated to the Long Gallery to enhance the special architectural qualities of the space. The Victorian ambience, the volume of the vertical space and the interaction from the floors above are all important considerations to be acknowledged and assimilated with the design solution.

Auxiliary Functions v

A first—aid room will remain in the north—west corner and a parents room will be built shortly in the south-west corner. Access to the Directors floor is to be maintained and the secondary stair to the Mineral Gallery will be re—opened after repair.

Existing Dioramas

The existing diorama are to be removed. A relocation of the Bird of Paradise display is to be made to the Abelam Gallery. The platypus diorama is superseded by the Mammal Gallery. The Lord Howe exhibits are to be photographed for archival purposes prior to their removal.

Museum as a Venue

The great popularity of the previous Skeleton Gallery as a venue for cocktail—type functions is to be considered when planning floor layouts.

Interaction

Visiting the Museum is to be exciting, interesting and entertaining as well as a structured learning experience. Interactive exhibits create these opportunities and should be included. Consultation with the Discovery Room team would be useful.

Funding

An overall allocation of \$200,000 (excluding temporary assistance) is to be committed to this exhibition over the 1989-90 year period. Sponsorship is envisaged.

Timing

The Project Team will commence immediately and the exhibition should be planned to open in August 1990. Approximate dates for the Referral Group Meetings will be negotiated with the Chairperson of the Team

Appendix B: Survey Results

SKELETONS SURVEY 2005 (n=150)

MOTIVATION 1. What was the **main** reason for visiting the *Skeletons* exhibition today? Came across it School Holidays 27% Taking kids / family out _ 9% 7% Came with someone else who was interested _ Visiting Sydney _ 6% General Interest _ Interest in the museum __ 3% Other For Life beyond the tomb exhibit _ 3% Specific interest_ 2% General interest in Skeletons 2% Saw something /heard about it _

FEEDBACK

2. What do you think are the main messages *Skeletons* is trying to communicate?

Bone structure	25%
Don't know/ no answer	19%
Importance of Bones	18%
Evolution	16%
Similarities and differences between animals	12%
Bones in animals	7%
Information about Skeletons	5%
Other	4%
About Life	3%

3. What words below (card 1) best describe your experience of the *Skeletons* exhibition? Choose **5** only. **(Showcard 1)**

Informative	63%
Educational	55%
Unique	46%
Different	41%
Atmospheric	32%
Welcoming	27%
Old Fashioned	25%
Fun	23%
Beautiful	22%
Friendly	18%
Dark	17%
Clear	14%
Cool	14%
Funny	13%
Spooky	10%
Quaint	9%
Warm	8%
Dusty	8%
Cluttered	7%
Cosy	7%
Modern	6%
Creepy	6%
Tired	5%
Dull	4%

Rubbish	3%
Ugly	3%
Cold	2%
Confusing	2%
Secure	2%

4. Please listen to the following statements and indicate your response on a scale of 1-5 with 1 being strongly <u>agree</u> and 5 strongly <u>disagree</u> (Showcard 2)

A. The exhibition had a logical flow

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
5%	55%	23%	14%	1%	2%

 $B. \ \,$ There was too much written information in the exhibition.

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
1%	10%	27%	53%	9%	1%

C. I enjoyed talking to the staff in the exhibition. N=40 (110 visitors did not talk to staff)

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
20%	68%	12%	0%	0%	0%

D. There were parts of the exhibition that were hard to read.

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
2%	19%	23%	50%	6%	0%

E. The "hands-on" activities improved my understanding of the content. (most N/A responses due to "not noticing or not using" hands on activities) N=112

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
7%	49%	13%	5%	0%	25%

F. The layout was confusing.

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
1%	13%	39%	43%	3%	0%

G. I could see everything I wanted to see.

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
9%	71%	17%	2%	1%	0%

H. I could hear everything I wanted to hear.

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
5%	51%	25%	12%	2%	5%

I. The exhibition was physically comfortable.

Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
12%	53%	29%	3%	3%	1%

J. The video was too long (most N/A responses due to "not noticing or being aware of" video) N=72

		0 (
Agree strongly	Agree	Neither	Disagree	Disagree strongly	N/A
3%	17%	19%	10%	0%	52%

5. What was the most interesting thing you saw in the *Skeletons* exhibition today?

Bicycle and primates	21%
Home sweet home/rocking man	11%
Elephant	9%
Common Dolphin with organs	9%
Pontiles evalution Crossdile Snake	00/

	8%
Don't Know Horse and Rider, Bone Ranger	7%
FishTouch exhibit	5%
Touch exhibit	4%
Bone structure in different animals	4%
Giraffe	
Video	
Birds / adaptive evolution, Emu	2%
Mammals giving birth, Monotremes/Marsupials	2%
Everything/ All much the same	2%
Ostrich	1%
Intro panel / endo-skeleton	
Mammals Marsupials/Kangaroo	
Mammals Lion Big Cats	
Lord Howe Island	1%
Small tiny skeletons	
Relationship between birds and mammals	
My boy getting interested in something	1%
Mammals Herbivores Boar Goat Sloth	
Mammals Carnivores Hyena-Dingo	0%
Seal/ Dugong	0%
	Skeletons exhibition to others as a must-see exhibition at the Museum?
Yes	69%
Unsure	
No	9%
Don't Know	28%
Nothing / Like it on in	120/
Nothing / Like it as is	13%
More information	8%
More information More hands on exhibits	8% 7%
More information More hands on exhibits Better labels and panels	8% 7% 7%
More information More hands on exhibits Better labels and panels More Children's Activities	8% 7% 7% 5%
More information	8% 7% 7% 5% 5%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer	8% 7% 7% 5% 5% 5%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive	8% 7% 7% 5% 5% 5% 4%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video	8% 7% 7% 5% 5% 4% 3%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals	8% 7% 7% 5% 5% 4% 3% 2%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour	8% 7% 7% 5% 5% 4% 3% 2% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour	8% 7% 7% 5% 5% 4% 3% 2% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour	8% 7% 7% 5% 5% 4% 3% 2% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages	8% 7% 7% 5% 5% 5% 4% 3% 22% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages	8% 7% 7% 5% 5% 5% 4% 3% 22% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cputaways of animals More space	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More skeletons More skeletons	8% 7% 7% 5% 5% 4% 3% 2% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More skeletons Take the panel off the Lord Howe exhibit	8% 7% 7% 5% 5% 4% 3% 2% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cutaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals	8% 7% 7% 5% 5% 4% 3% 2% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More extaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cutaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cutaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals More seats A model of the human body with organs	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cutaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story Remake it	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story Remake it Make it quieter	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story Remake it Make it quieter Clearer exhibits	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cutaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story Remake it Make it quieter Clearer exhibits Too hot	8% 7% 5% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
Nothing / Like it as is	8% 7% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story Remake it Make it quieter Clearer exhibits Too hot No answer	8% 7% 5% 5% 5% 4% 3% 2% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cutaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story Remake it Make it quieter Clearer exhibits Too hot No answer 8. Would it matter to you personally if the No	8% 7% 7% 5% 5% 5% 5% 4% 3% 2% 11% 11% 11% 11% 11% 11% 11% 11% 11%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cutaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story Remake it Make it quieter Clearer exhibits Too hot No answer 8. Would it matter to you personally if the Neys	8% 7% 7% 5% 5% 5% 5% 4% 3% 2% 11% 11% 11% 11% 11% 11% 11% 11% 11%
More information More hands on exhibits Better labels and panels More Children's Activities More modern Cannot/no answer More interactive The Video Photographs of the animals More educational Change colour Scrap it Make it more interesting Information in other languages More cutaways of animals More space More skeletons Take the panel off the Lord Howe exhibit More Australian animals The human skeleton to be placed more central More seats A model of the human body with organs More logical better story Remake it Make it quieter Clearer exhibits Too hot No answer	8% 7% 7% 5% 5% 5% 5% 4% 3% 2% 11% 11% 11% 11% 11% 11% 11% 11% 11%

10. Did you enjoy the following exhibitions more or less than Skeletons (Showcard 3)

	More	Less	Not seen
Indigenous Australia	16%	29%	55%
2. Planet of Minerals	3%	35%	62%
3. Chapman Mineral Collection	5%	21%	74%
4. More Than Dinosaurs	24%	15%	60%
5. Human Evolution	16%	21%	64%
6. Kids' Island	12%	10%	78%
7. Biodiversity	10%	29%	60%
8. Birds & insects	16%	24%	16%
9. Search & discover	7%	28%	55%
10. Life Beyond the	53%	19%	28%
Tomb			
11. Dog's Life	3%	12%	85%

11. Of these exhibits which was your favourite so far? N=58

10. Life Beyond the Tomb	45%
12 Skeletons	21%
1. Indigenous Australia	9%
4. More Than Dinosaurs	_ 9%
5. Human Evolution	_ 5%
8. Birds & insects	_ 5%
Chapman Mineral Collection	_ 2%
6. Kids' Island	_ 2%
7. Biodiversity	_ 2%
No answer	_ 2%
Planet of Minerals	_ 0%
9. Search & discover	_ 0%
11. Dog's Life	_ 0%

12. People learn things in different ways. For each way I read out, please say weather or not you learnt anything in this way during your visit to the *Skeletons* Exhibition today. (Showcard 4, Read out and Rotate order)

A. I discovered things that I didn't know

Yes alot	Yes somewhat	No not really	Not at all	N/A
24%	60%	13%	3%	0%

B. I learnt more about things I already knew

Yes alot	Yes somewhat	No not really	Not at all	N/A
15%	54%	29%	3%	0%

C. I remembered things I hadn't thought of for a while

Yes alot	Yes somewhat	No not really	Not at all	N/A
17%	49%	29%	3%	1%

D. I shared some of my knowledge with other people

Yes alot	Yes somewhat	No not really	Not at all	N/A
14%	29%	35%	14%	9%

E. I got curious about finding out more about some things

Yes alot 8% G. I got a Yes alot 13%	Yes somewhat 49% reminded of Yes somewhat 48% real buzz of Yes somewhat	No not really 31% f the import No not really 39%	Not at all 4% tance of sor	N/A 0% me issues	
F. I was I Yes alot 8% G. I got a Yes alot 13% H. It was	49% reminded of Yes somewhat 48% real buzz of Yes	31% f the import No not really	tance of soi		
Yes alot 8% G. I got a Yes alot 13% H. It was	Yes somewhat 48% real buzz of Yes	No not really		me issues	
8% G. I got a Yes alot 13% H. It was	somewhat 48% real buzz of Yes	really	Not at all		
G. I got a Yes alot 13% H. It was	48% real buzz o	-		N/A	
Yes alot 13% H. It was	Yes		3%	2%	
Yes alot 13% H. It was	Yes	out of what	l learnt		
H. It was	Jointownat	No not really	Not at all	N/A	
	40%	43%	3%	1%	
Yes alot	pleasant to		led and to le	earn more	
	Yes somewhat	No not really	Not at all	N/A	
23%	68 %	7%	3%	0%	
l. It was a	all very fam	iliar to me			
Yes alot	Yes somewhat	No not really	Not at all	N/A	
1%	40%	51%	7%	1%	
J. Some	of the thing:	s I learnt w	ill be very u	seful to me	
Yes alot	Yes somewhat	No not really	Not at all	N/A	
9%	45%	39%	7%	1%	
Yes	long is it			49	% % seum? N=76
2 to 5 yea 1 to 2 yea	or more ars ars ears months			22	% % % % %
1 2 5 >5				60 10 10	eum in the last 12 months, not counting your visit today? N=10 % % % % % %
No Yes	ıld you be			56	useum in the next 12 months? % % %

17. Where do you come from?

Sydney	37%
Overseas	18%
Newcastle/Canberra/Wollongong	17%
Interstate	15%
Other NSW	13%

VISITOR CONSTITUENCY

18. Who did you visit with today?

With family	51%
By yourself	21%
With spouse/ partner	13%
With friends	11%
With family & friends	3%
Part of organised group or tour	1%

19. How many people, including yourself, are in your group today?

Adults

2	479
1	37%
3	10%
0	4%
4	2%
5	1%
8	1%

Children

0	41%
2	33%
1	16%
3	7%
4	3%
6	2%

EDUCATION

20. What is the highest educational level you have attained to date? (Show card 5)

Certificate	26%
Diploma or Advanced Diploma	21%
Bachelor Degree	20%
Postgraduate Degree	9%
Primary school	8%
High school	8%
Graduate Diploma/Certificate	7%

INCOME

21. What is your approximate annual household income? (Show card 6)

\$50,000 - \$74,999	22%
No response	19%
\$75,000 - \$99,999	17%
\$25,000 - \$49,999	14%
\$100,000 - \$149,999	14%
Under \$25,000	7%
\$150,000 - \$199,999	2%
\$200,000 and over	5%

OTHER COMMENTS

22. Do you have any other comments about the Museum in general?

No comment	67%
Positive comment about Museum	24%
Negative comment about Museum	5%
Suggestion / recommendation	5%
Other	1%
Positive comment about exhibition	0%
Negative comment about exhibition	0%

GENDER		
24. Note gender:		
Female	59%	
Male	41%	

Appendix C: Tracking Study

Male

Teen Boy

Boy

In

Out

9

10

I = Ignore S = SkimA = Attend

Female Teen Girl Girl

Exhibit:

Time

Key:

Adult

Teen

Child

E = Engage 1 Α 2 3 5 6 8 В С

12 13 14 15 16 17 18 20 21 22 11 19

Comments:

Activity Station open? (17)			Yes	No		
Part of a group:			Yes	No		
Couple	Family	F	Friends	School Group with teacher/ adult		
Group stays together passively	Group is taken / lead around	br	Group reaks up into smaller groups	Group breaks up into individuals		

Interactions Key:

Ignore: Visitor passes within 2 metres of exhibit but fails to attend or skim Skim: Visitor looks briefly at exhibit details but does not stop to attend Attend: Visitor stops at exhibit with both feet still for at least 2 seconds Engage: Visitor is clearly active and intently reads or uses exhibit

Skeletons Tracker Study No: Date:

