Museums and science centres in the transmission of cultural diversity

# STRENGTH IN DIVERSITY – A NEW SPORT EXHIBITION COMMUNICATES SCIENCE WITHIN A CULTURAL CONTEXT

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#### **Abstract**

Sport: more than heroes and legends, an exhibition at the Powerhouse Museum in Sydney, Australia, presents science and technology along with the design, culture, history and fashion associated with sport. Diverse themes are woven together and communicated throughout the exhibition using varied display media including showcased objects, interactives and audiovisuals. Although complicated to develop, the resulting exhibition is a varied learning environment which engages a wide range of visitors. I justify the extra effort because I believe the general public grasps a greater appreciation of science when it is presented within a broad and meaningful social and cultural context.

Key words: sport, culture, diversity

## **Text**

## Approach, messages and audience

The *Sport: more than heroes and legends* exhibition covers the science, technology, design, culture, history and fashion of sport. We interrelate these diverse topics to show many ways that sport and society interact.

Important messages which appear in various guises through the exhibition include: that many women, indigenous Australians, migrants and disabled people are sporting achievers; the role of sport for health; wear protective gear to play sport safely; and a featured section about unsung volunteers and others who contribute to the Australian sporting culture. While the exhibition focuses on Australian involvement in sport it has an international context.

This large and varied exhibition contains a lot for nearly everyone, even for those who think they have no interest in sport. Visitors wander through the exhibition very much in an exploring mode, with various displays capturing and holding the attention of different people and much intergenerational interaction. The interactive exhibits are intended for all users but hold special appeal to children.

The strength of the exhibition is its coherent diversity. More than 60 sports are represented in unexpected and pleasing ways at every turn. Frequently the curious, beautiful or historical content captures a visitor's attention and they are drawn to explore surprising links between disparate subjects. The interactives are

mostly science related, engaging to use and encourage the visitor to contemplate some relationship between what they do and the concepts involved.

# Science and technology content

There are more than 100 stories about and references to science and technology in the exhibition. They cover the past, present and possible future and are often linked to fashion or design topics. Some subjects covered are:

- the evolution of a wide range of playing and protective equipment,
- how the body works to be a 'Human sport machine',
- effects of performance enhancing drugs,
- why it is important in many sports to minimise wind resistance,
- effects of changing technologies on sports, and
- how new materials can even lead to new sports or increase accessibility.

Other content includes eight international and regional fashion stories, numerous examples of design, several cultural topics and many historical references. The exhibition combines more than 700 items (most in showcases), 15 interactive exhibits, more than 30 audiovisuals and many graphic elements.

#### Science in a diverse context

I believe science and technology becomes more engaging and intriguing to a wider audience when ideas are placed within a broad and meaningful social context. To do this for an exhibition requires researchers with varied subject backgrounds working together. They develop the diverse themes and propose appropriate and varied ways to communicate individual or related ideas - this leads to a multiple-media exhibition. The team must also develop a simple and flexible structure to bring coherence and focus to the rapidly multiplying stories. The exhibition design process balances the content with a variety of experiences and moods throughout the final display.

### Exhibition evaluation

An interview-based evaluation of 200 visitors to the Sport exhibition finds that 98% of them would recommend the sport exhibition to others, the highest rating we have achieved for any internally or externally developed exhibition. 95% of those interviewed rate the exhibition as 'good' or better with 19% saying it was 'extremely good'. Visitors' thoughtful comments about 'preferred aspects' of the exhibition and 'learning responses' were encouraging, but there were relatively few specific mentions of science and technology. A more focussed study would be required to determine how many visitors were appreciating the science information.

# Organising concepts – first the labels, then the gallery

Verbs, such as 'run', 'jump', 'fight', 'hurl and heave', 'celebrate' and 'kick', are used as a means to organise and unify information. These engaging action and emotion verbs show up in heading and subheadings of most labels. Labels vary from telling stories of individuals or events, to explaining technology and how it

has affected the sport, to placing fashion in social and other contexts, to relating scientific concepts to sport.

The verbs are grouped to form five exhibition sections:

- 1. Elite and Olympic sports: Australians at the world's games
- 2. Weekend warriors and watchers: playing the most popular sports
- 3. Bats, balls, bows, bullets: and super sports gear
- 4. The great outdoors: sports in the elements
- 5. Heroes and legends: and your personal best

## Interactive exhibits

Many of the interactive exhibits achieve the challenging goal of being fun to use while making the visitor think about what they are doing. Experiences range from handling athletic field equipment or role-playing while standing on a victor's podium to more complex doing and learning activities involving kicking, jumping, throwing, aerodynamics, physiology, weight classifications, sports media technology, evolution of sports clothing and textiles, biomechanics of diving, surfing and sailing.

# Public and educational programs

A wide range of programs complement the exhibition, including for people with a disability.

Fight - an opponent: combative sports area of Elite and Olympic sports section



The showcase at rear presents unarmed combat sports of different cultures, protective equipment worn to limit injuries and how boxing has inspired fashions. At nearby interactives, visitors use a scale to find their weight class for various sports, learn how their body is a 'human sport machine' and handle athletic field equipment (far left).



<u>Fight</u> – for acceptance: the semi-sweet social science of boxing showcase

A display which explores the relation between sport and social class and skin colour.