

Working to Integrate Access on a Budget

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"To confine our attention to terrestrial matters would be to limit the human spirit."

Stephen Hawking

Astronomy, stargazing, universe exploring is an area which takes us out of our daily human existence and puts in context with our minor significance. Yes, we are most likely all made of star stuff and the planet we inhabit is in only one of many millions of solar systems which are part of our Milky Way Galaxy. This Galaxy is only one of many millions or more galaxies which make-up our universe. We are, in the realm of size, insignificant.

However, Stephen Hawking, well known cosmologist and sufferer of a severe Motor Neurone disease also commented that our insignificance is combated by the fact that we all endeavor to understand the Universe. This is part of the Human Spirit.

Today I want to explore how that endeavor can be shared with all at the small, but nonetheless historically important Sydney Observatory. I believe I was asked to speak today not because we offer the latest, the greatest experience, but because the Observatory specializes in providing different experiences to suit different needs and abilities. I have no illusions that what we do is perfect or to be emulated.

The three main points I want to get across are:

1. Historic buildings pose challenges to cater for special needs
2. Flexibility for the range of needs is important
3. Education and work experience for all students.
4. Communication for future direction

HISTORIC BUILDINGS

Sydney Observatory was built in 1858. It was the second Observatory building in Australia (the first was in Parramatta and no longer exists) and operated as a working observatory until 1982 when it became a museum and astronomy education organization under the Powerhouse Museum's Trusteeship.

The building had new stairs and handrails installed to attempt to meet Ordinance 70 (now the Building Code of Australia) although, the age of the building does mean that many exemptions were permitted. An area which was previously a store and workshop was made into toilets. In 1997 an exhibition was installed which showcased the historic telescopes and other instruments which were important in mapping the Southern Skies and exploring and mapping the coastline of Australia.

In 2002 a 3-D Space theatre experience was installed and also a small planetarium for use on clouded nights.

From a physical viewpoint the building has about 50% available to those who cannot climb stairs. While there is a proposal to install a lift to the second floor (not the domes) this has not yet eventuated. We have come-up with three things to improve this situation:

- An astronomer designed special arm and telescope mount for use in the courtyard. This has varying heights which can be adjusted to suit people in wheelchairs or with limited movement.
- Purchase of a new solar telescope the same as the one in the dome to provide the same experience of viewing the sun, our closest star, from the courtyard.
- Production of a 3-D Space theatre movie which features the 2 domes and also includes other areas of the Observatory which are not accessible to any general public.

While these do not amount to the same experience, they do mean that, with a little advance notice, we can still provide a valuable experience.

Very few groups have consistent needs. It is not wise to 'assume' what the group needs. For example, a so-called "normal" school

group may have students in wheelchairs or unable to climb stairs for another reason. What we do is assemble an external telescope and the entire group shares the same experience- we do not say some can do this and others can do that. What this means is that we put the effort into making the alternate experience first rate.

A booking for the *House with No Steps* was initially wrongly interpreted as not able to climb the stairs at the Observatory. It turned out that this group were all able to go up to the dome with assistance and really enjoyed the telescope domes and lounging around in the planetarium, we were all very pleased that the organizer rang us before the tour and told us what to expect. Furthermore, they were on an outing which included a picnic lunch on the lawn, which we did not know about. A follow-up phone call after their visit let the organizer know that we now have picnic tables and can help them with better seating arrangements next time if we talk beforehand.

It is all about communication. Because we do not have a modern facility we need to know when groups or individuals have a disability so we can ensure they get the best experience possible like on-site parking, an area for lunch, a telescope outside, a shorter tour in the building and more time on the grounds e.t.c.. For the outing to be worthwhile it must be a pleasant experience for the carers as well as the group. It has most likely been a much bigger effort for the clients to get out of their specifically-designed environment to come to the Observatory, than it is for us to adapt to their needs. While some museum staff have had trouble seeing this, most now understand that we are not doing them a favour.

FLEXIBILITY FOR THE RANGE OF NEEDS

The other area of particular importance to the Observatory is the ability to generate intellectual stimulus in all visitors. We have found that the 3-D Space theatre, which we can manipulate as well as having pre-programmed shows, has been excellent in gaining a response from the whole range of intellectual abilities. In a 3-D environment you can feel like you are traveling through Space. This is the closest any of us will get to being an astronaut. We are able to show amazing views of other planets- the earth is not the “normal”

planet- in fact we are the odd ones out when it comes to our immediate neighbours in Space.

Our bean bag planetarium is small and cosy. It is suitable for people in wheelchairs and can have conventional chairs put in it for those who find getting onto a beanbag difficult. Many clients love the squishy bean bag experience and the sense of being under a night sky. It is a far cry from the state of the art planetariums found in other major cities but in some ways this personalized experience suits the Observatory and how we best relate to visitors.

Similarly, the experience of being in the historic domes, the acoustic environment and the rotation, create a sense of awe which is experiential and sometimes as valuable as the astronomy experience.

We find that most groups of people with severe hearing problems provide their own AUSLAN interpreter. Our staff can vary their presentation style and speed to take account of this and make it possible for questions and engagement.

We aim to provide a flexible service for school groups. If we know that a certain group has students who are less able physically, intellectually or behaviorally then the experience can be tailored to suit. A group whose clients are adults with intellectual and physical disabilities visited us recently and I spoke with the supervisor after the visit to see what they liked and what they thought we could improve. Like the House with No Steps they enjoyed the 3D Space Theatre and the Planetarium. They could not visit the domes and it was a bad-weather day so we could not help with an outdoor telescope, therefore we spent more time in the planetarium and 3D Theatre and then in the grounds. They commented that we could improve the pathways and some of the external areas of the site. We are now planning to re-do the paths and install a sundial and some other features so this follow-up was very important in informing our plans.

It is to everybody's benefit to treat those with special needs as such – I have had several discussions with people from the Department on this point. I feel we give a lesser service by putting everybody in the

same category- generalization works only to the benefit of the fully-able in our particular case.

EDUCATION AND THE ROLE OF WORK EXPERIENCE

Over the past 2 years we have increased our work experience and research program to include those with learning and other disabilities. This has had numerous rewards for the Observatory staff and the students. What is interesting is how few workplaces will take school children for work experience, let alone those with special needs. It may mean closer supervision; however, it is interesting to see the dynamic which can occur between peers. One example is Kirsty, aged 18. Her intellectual disability means that she relies on repetition, that doing new things is a major challenge. Her teacher called the Observatory as she had been unable to place Kirsty in any other workplace. We soon discovered that she liked doing photocopying and mail outs, the repetitive stuff; however, we were keen to get her more involved. She was given the task of researching a constellation with the 2 other work experience students who did not have disabilities with the aim of a presentation in the planetarium. We all discovered that Kirsty had interesting ideas and was very capable of doing computer research, and, although she was shy of doing the presentation, she added aspects of the mythology which the other 2 girls had forgotten.

We also have a research astronomer who cannot walk and has limited use of his arms but has a super wheelchair with devices which help him do most things. He began by bringing ramps with him to get into our 1880s administration building after we had to lift him in the first time he visited. Ramps we can leave in place are now being made that we can leave in place so he doesn't have to cart bits of wood around. This gentleman is doing important research on Australian astronomy which requires persistence, self-motivation and patience. His disability seems to have taught him both of these traits.

THE FUTURE

As I stated in the beginning we have only made very small steps. There is much more we can do to improve our services and facilities.

While I applaud the concept of Disability Awareness Week I believe that the focus for the Observatory is the ability to provide services

throughout the year and improving our long-term accessibility. We have distinct qualities, for example a safe and interesting night-time venue, which I believe are our strengths. We also offer outreach programs to those who simply are not mobile.

I feel inspired by Stephen Hawking who, in spite of being severely disabled, is highly active in physics, writing, and public life. He was diagnosed at the age of 21, shortly before his first marriage. At the time, doctors said he would not live more than about two or three years longer. He battled the odds and has survived much longer, although he has become increasingly disabled by the gradual progress of the disease. He has used an electronic voice synthesizer to communicate since he had a tracheotomy. He gradually lost the use of his arms and legs and now almost cannot move. The computer system attached to his wheelchair is operated by Hawking manually through a device called "Clicker", which lets him select words and other options on his computer's screen, but can be controlled by head or eye movement as well. Hawking often comments how fortunate he was that his deterioration was very gradual and that he was understood as a genius before his disability took hold of him. Who knows how many of the clients who visit in wheelchairs, with little movement control and slurred speech may also have not only normal but exceptional abilities which we cannot perceive.

Technology will offer many new solutions and it is important for us to all be aware of what possibilities there are to open-up historic sites, collections and concepts further. We have plans to work with companies like acoustiguide, who have left brochures for you on their AUSLAN system, to provide better interpretation of the Observatory for those with hearing disabilities. We have recently re-discovered a dome which was removed from the Observatory grounds in the early eighties and, if all goes well, will be able to provide a dome experience which is accessible at ground level. For those with sight impairments a 3-D sculpture of the solar system which has the planets at relative size and distance could provide a walk which would be enjoyed by all around Observatory Hill. Other sculptural elements such as a touch trail star map would help communicate scale and the relationship between our world and others.

In conclusion the most important thing we can do is consider all our users when planning new facilities and listen to our clients before they visit, during their visit and contact them afterwards. Even small improvements are worthwhile.