

WILDLIFE HEALTH IN THE ROUND HEALESVILLE SANCTUARY'S AUSTRALIAN WILDLIFE CENTRE

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Abstract

Health in nature is reflected in the balanced relationships between all living things. Health is one of the living world's few unifying themes. It affects individuals and entire communities and will always be of primary concern. Our driving philosophy for the new Australian Wildlife Centre is the notion of shared responsibility, shared hope and a shared future for Australian wildlife, people and habitats.

Healesville Sanctuary's new Australian Wildlife Centre integrates wildlife health care into the visitor experience. Through this experience, visitors gain a new perspective of their place in the world - a world where the differences between humans and animals become less obvious and the shared challenges of health and survival become common goals.

Innovation pushes new boundaries and opens up exciting new possibilities - but is not without risk. Resolving the issues that face patients, visitors and staff in a facility that literally turns the traditional behind-the-scenes veterinary experience - inside-out, is a complex and difficult task. This concept has evolved through the efforts of a specialized team of external consultants and internal staff including architects, interpretive designers, landscape architects, veterinary professionals, training professionals and information technology experts.

The visitor shares the patient's journey through a number of specialized areas including landscaped habitat, impact theatre, rescue, emergency, operating theatre, laboratory, post-mortem, recovery, reintroduction and release. The real experiences of the working hospital come alive through a combination of science, technology and art.

At a cost of six million dollars, The Australian Wildlife Centre puts wildlife health on everyone's agenda, from government to communities to individuals.

Everyone will get the chance to experience this unique wildlife hospital and to share in some of the most powerful and rewarding moments that bring people and wildlife together.

Health as a Unifying Theme

The Zoo community has a unique way of looking at life - placing ourselves and our lives - in the larger biological context. In a world where economic realities take the biggest bite, we choose to emphasise the idea of Biological Rationalism.

But what is it that will recruit others, outside our unique world to this vital and sensible cause? Healesville Sanctuary seized upon health as a unifying theme, around which a new and exciting project could develop. Aligned with a corporate determination to achieve a new purpose and direction, this idea grew and The Australian Wildlife Centre became one of Zoo's Victoria's most tangible expressions of its 21st Century, New Zoos Vision.

Zoo's Victoria Vision:

We build enduring relationships between people and wildlife for a future in which humans live in balance with the natural world.

What are we trying to achieve?

There are some basic human experiences that the zoo community seeks to achieve including:

- Caring
- Sharing
- Experiencing
- Discovering
- Participating
- Changing the world (from what to what?)
- Changing somebody's world
- Changing anybody's world
- "Saving" the world (from what and for what purpose?)
- Understanding
- Explaining
- Educating
- Involving everybody

Through the unifying theme of health, which invests its interest in all living things, we can change the way people see the world and their place within it. Creating a sense of place and belonging and giving people a new perspective on where they fit into the wider world, will rekindle a connection to 'community' through an environment that involves people and wildlife in a supportive and meaningful context.

The Australian Wildlife Centre at Healesville Sanctuary will provide us with the opportunity to achieve these goals through the unique and exciting path of real-life veterinary action, bringing everyone into our world and sharing it with them.

What do we mean by 'World'?

1. The Universe, all that exists
2. The earth with all its countries and peoples
3. A heavenly body like it
4. A section of the earth
5. The people or things belonging to a sphere of activity (a niche)
6. A time, state or scene of human existence
7. Everything, all people
8. Material things and occupations
9. A very great amount

Is this project as unique as we claim?

It is interesting to note that there is a deal of activity, worldwide, in the design and construction of facilities relating to wildlife health. Those currently in existence or on the drawing board include:

- Wildlife Health Centre, UC Davis
- New Zealand Centre for Conservation Medicine, Auckland, NZ
- Conservation Station with Veterinary Treatment Room and Wildlife Tracking Center, Disney World, Orlando, Florida.
- Wildlife Health and Conservation Centre, University of Sydney, Camden
- Koala and Wildlife Hospital, Australia Zoo, QLD
- National Wildlife Health Research Centre, Madison, Wisconsin
and opening at the end of 2005
- The Australian Wildlife Centre, Healesville Sanctuary, Victoria, Australia.

The Australian Wildlife Centre is unique in that it seeks to offer a real life experience that is authentic, intimate and truly 'in the moment.' We believe this is our point of difference that creates our 'niche' and provides us with our own special place within this global community that is bringing wildlife health to the people.

We believe the new Australian Wildlife Centre embodies all that Art, Science and Technology have to offer, in a true melding of disciplines that have traditionally been estranged.

In this place we will share and celebrate the similarities between humans and wildlife. We will interpret and investigate our life predicaments and needs, through the pathway that the unifying theme of 'health' provides.

Giving Birth

This project was first conceived in 1988. The gestation period has been long and arduous, taking seventeen years to develop. Why, so long? This is a difficult question but one well worth answering.

True to say - many conceptions or 'ideas' fail to materialize. In an embryological sense, many promising projects are aborted well before term. In order for an organization to give birth to an idea certain maternal realities must be met. Firstly, the bigger the project, the more likely the need for a caesarean style delivery - where a larger team of experts and sophisticated equipment is required in order to guarantee delivery. The second maternal reality is that an undernourished embryo stands little chance of reaching full-term. In order to support the embryo, an organisation must be healthy. There is no room for flagging interest in the foetus or the mother during the pregnancy.

We also believe that ideas have their time and place, that is, the timing must be just right. For a large project such as The Australian Wildlife Centre to come about, a threshold level of support amongst key individuals had to exist. This included government, corporate sponsors, organizational leaders and the community. This coming together of the journeys of people and the recruiting of support via the process of cultural evolution can produce the required energy to overcome corporate inertia and get the idea moving forward.

We further believe that the creation of a shared destination is vital to the process. The Australian Wildlife Centre began life in 2000 within an environment of economic rationalism, when our zoos were facing significant financial shortfalls in an increasingly competitive environment. The solution to this predicament was seen to involve two related activities; raise revenue by attracting increased visitation and lower costs by reducing services.

Ironically, around this time, one suggested cost-cutting measure was to cease taking in rescued wildlife. In the midst of implementing plans to close our wildlife rescue service (ARC), came the idea of attracting more visitors by admitting them into the world of veterinary wildlife care.

Out of adversity, the Australian Wildlife Centre was born and so we had the first steps in the formulation of a shared destination where the pathways of those whose job it is to count the beans and those that care for animals found themselves, suddenly, on the same train.

At the same time another very important process was going on. The organization was re-inventing itself to become a Zoo of the 21st Century. This process involved developing a new mission, a new vision and a clear purpose for existence. Quite logically, the new corporate personality included a demonstrated capacity and will to bring wildlife and people together; perfect timing. The caring role the zoo plays in taking in rescued wildlife became the key driver for the new hospital and the basis of our new relevance to the community. The organization now had a significant frontline project (amongst others) to strengthen its business case to government for the procurement of funds to achieve the stated renaissance goal of becoming self-sustaining, vibrant, valuable and relevant community treasures.

Of course the process would never have succeeded in delivering this project if it had not been for the support of the property directors, the Chief Executive Officer, the Board of Zoos Victoria and the State Government. This group showed a remarkable amount of passion and determination to see the project through. Why would they feel so positive about the level of acceptance of this idea with the community?

For strange and mysterious reasons people seem to have a natural interest in animal health and veterinary work. In spite of these activities being traditionally undertaken in 'back-of-house', there has always been a significant amount of interest in 'behind-the-scenes' tours. Visitors to the Veterinary Hospital and the wildlife rescue centre (ARC) at Healesville Sanctuary have always expressed satisfaction and interest in their experience, despite the facilities being modest.

This natural interest in wildlife care and veterinary health extends to government, corporate stakeholders and others. A 'hard-sell' becomes an 'easier-sell' simply because wildlife health is the perfect, mutually beneficial vehicle, through which stakeholders can find an authentic, legitimate and relevant pathway into achieving their 'triple-bottom-line' aspirations.

In 2004 the environment is right up there, with both stakeholders and government. In recent years, Victoria's Environment and Water portfolios ascended from low down on the political tree, to become the responsibility of the Deputy Premier, Victoria's No 2 John Thwaites. The Australian Wildlife Centre, funded largely by the Victorian Government is testament to their commitment to wildlife health and the wider context of conservation and the environment.

Preparing for the New Baby

The Australia Wildlife Centre is being constructed on a site, which began life as a walk-through kangaroo exhibit - a site previously identified in 1988 as the most suitable site for a new veterinary hospital. Quite independently, this site was confirmed in 2003, without reference to the original planning documents, as the most suitable site for the Australian Wildlife Centre. The site provides a variety of natural vegetation, is adjacent to the beautiful natural waterway of Badger Creek and also offers an extensive area for the development of landscaped surrounds and approaches that compliment the building.

Designer Baby

The Team

A great many individuals have contributed to the design of this project, many from within our organization representing animal health, animal husbandry, interpretation, information technology, discovery and learning, marketing and communications, works and maintenance, horticulture, retail, scientific research, secretariat and finance. External specialists were recruited into the three main areas of design: Architecture (Minifie Nixon), Interpretation (Cunningham Martin) and Landscape Architecture (Rush Wright).

In addition to this group, many people, professional and otherwise offered assistance and advice derived from their own experiences in creating facilities of various sorts. In particular the veterinary profession and the zoo industry were supportive and helpful and generous with their time and ideas. In his own words, Paul Minifie from Minifie Nixon describes the building:

The Australian Wildlife Centre is a building quite unique in both its function and form. It is both a fully functioning veterinary facility and a remarkable and compelling experience for Sanctuary Visitors. The building has been designed to bring Healesville visitors into close contact with the vets and their patients to gain a vivid understanding of how sick and injured Australian animals are cared for. From a central space visitors can witness the diagnosis of animals, the work of the laboratory, see animals being operated on, and view them recovering and returning to health. A rich multimedia interpretive experience enables visitors to gain a keen understanding of how animals become injured and the full range of activities involved in their care.

Designed by Minifie Nixon Architects, the AWC is organised around public gallery space where visitors interact with the activities of the veterinary hospital. The gallery ceiling dips and curves to speak simultaneously of both organic and scientific forms. Resembling perhaps a tree, or the ventricles of a heart, it provides a central focus to the surrounding activities and exhibits. The roof form is also designed to work as a 'solar chimney', removing hot air from inside to provide passive ventilation to the gallery space, and so removing the need to air-condition. At the centre of the space the roof form descends to floor level to enclose a central space in which visitors may stand to view the multimedia explanation of animal trauma and care projected onto its surface. Constructed from a shimmering gold membrane, the structure will be visible from the surrounding landscape.

Baby Taming

Innovative projects are by their very nature, risky. But we believe the benefits gained, by allowing visitors to share the unique journey of wildlife care, far outweigh the risks.

The bringing together of visitors, animal health staff and wildlife patients presents us with a series of difficult issues. These issues are not impossible to solve and the rewards are tempting. Patients are to be protected from physical and psychological disturbance, staff are to be protected from interference and distraction in the performance of their duties and visitors are to be protected from sights, smells, infections, injuries, situations and issues that they are not adequately equipped to deal with. Whilst some of these problems are perceptions only, it has been necessary to consider all possible outcomes to minimize potentially harmful impacts.

Various design elements have been incorporated to address these issues without detracting from the excitement and immediacy of being "in the moment".

A training program has been developed to prepare and equip staff for this new and innovative way of sharing their work and 'working in the moment'. The methods employed within this facility will guarantee the visitor a range of memorable experiences without affecting the standard and delivery of veterinary care. At all times, the welfare of the patient will be uncompromisingly, at the top of the tree.

The risks represent the costs of gaining the reward of bringing a real experience within the reach of visitors. Perhaps the most challenging risk is managing the exposure of professional staff to the visiting public in this unprotected, face to face environment. Staff are prepared to undertake this challenge and are committed to providing the best possible clinical care for their wildlife patients. Structurally and functionally, the building provides a range of options for managing difficult situations including the opportunity to retreat to more secure work spaces with limited exposure to the gallery. The extensive use of technology will also provide a range of alternative experiences for visitors without losing contact with the case or the staff.

Patients will be exposed to potential disturbance and dual facilities in examination, surgery and care/recovery will make it possible to protect certain patients from gallery exposure. Procedural modifications to minimize the prolonging of examination time will be built into the staff training program.

Bringing the Baby Home

The experience of visiting the Australian Wildlife Centre follows parallel journeys of patients, visitors, and staff. The Centre offers a full spectrum of experiences: physical, spiritual, emotional, cognitive, developmental, biological and therapeutic. The experience will be richly layered to include real-life veterinary care in action, a built interpretive layer that offers easy pathways into complex biological and technical concepts and ideas, landscapes to contemplate and reflect on the experience and a building which in itself creates a new landmark in the Healesville Sanctuary environment symbolising a new heart - centred around our precious Australian wildlife, their care and conservation.

Here are some of our thoughts that articulate the experiences offered.

- A desire to connect people with wildlife and the natural world in a unique and engaging way. The most powerful learning experiences are those that are real and the AWC offers a wide range of these opportunities.
- This will be a place where patients, professionals and visitors come together in a real and meaningful way.
- On any given day you will share in the decision making process as we care for and treat the many injured and orphaned animals that need our help.

- As you enter the magnificent gallery space, itself a striking experience, you'll be amazed to see the entire animal hospital on display with all aspects of wildlife care there to be shared and enjoyed.
- On any given day, you might see rescued animals on arrival; be there as vets examine patients and make crucial decisions.
- Look down a microscope and try your hand at diagnosing disease with real wildlife cases.
- Work alongside veterinary nurses and find out what it takes to care for animals and guide them through to a successful reintroduction to the wild.
- You may even be invited to witness animal surgery first-hand in a uniquely designed Operating Theatre.
- Learn about what to do if you should come across injured or orphaned wildlife.
- Follow the patient's journey on the Internet and learn about the successes and failures that we experience.

Let the journey begin!

Landscape - Beware! Humans!

Health in nature is reflected in the balanced relationships between all living things, but when nature - in its delicacy and complexity - is disturbed, relationships are compromised. While some living things adapt to changed conditions and survive, others are lost forever.

Living is hazardous! In this landscape journey, your perspective on life will be challenged to look at life through the eyes of an animal facing one of many impacts caused by human action. Beginning in a serene landscape, on an approach from the trickling waters of Badger Creek, the visitor begins to take in clues in the landscape, beginning with a road sign that says, "Wildlife Ahead."

Perhaps expecting an encounter with an animal, the visitor is challenged by a soundscape alerting them to the natural sounds of the bush. These sounds are progressively disrupted by the sounds of a chainsaw, the scream of a feral cat, a pack of dogs in attack, screech of tyres followed by an impatient sound of a car horn.

Other clues - that something is amiss in the landscape and that the human being has a part to play in this story, set the stage for the journey to continue as visitors approach the physical structure of The Australian Wildlife Centre. Here, the dilemmas facing wildlife and people will be exposed further - but solutions are at hand.

Mission Control - Arrival

The hub of the Australian Wildlife Centre, with its finger on the pulse of all the action!

Visitors enter the AWC building and gravitate towards the 'menu board' - an eye-catching feature in the visitor gallery. There is so much going on, but the menu board provides a focal point and helps visitors to make sense of the experience to come. The menu board offers information about the AWC, including the fact that they are in a real, working wildlife hospital with real patients.

Visitors will know when the next surgery is scheduled, or if there is an emergency in progress. Who to look for if they want personalised help? Where to go if they want to join the action of the AWC, or perhaps sponsor an animal? Live-cam views to a Helmeted Honeyeater's nest in the wild, raises the visitors interest and sense of excitement of the journey to come.

Impact Theatre - Circle of Life

All life is interconnected. Humans beings have a special role to play, linked with our ability to care for other species, to foster respect for all living things and to create a future full of hope in a shared world.

Visitors will be drawn into the central 'heart space' of The Australian Wildlife Centre. A stunning multimedia audio-visual production, using multi-screen projection, will be a striking focal point and will deliver the key understanding for visitors about the Centre. Here, the functions of the hospital and treatment zones will be explained giving visitors a complete story of an animal's journey from injury and rescue to treatment, recovery and release.

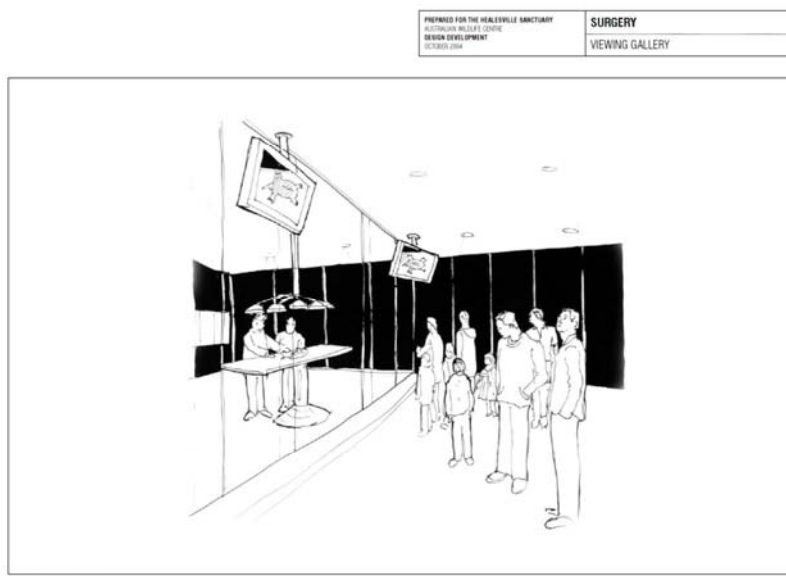
The Impact Theatre will also introduce key philosophical statements and messages and provide a powerful experience for visitors. While the key experience will be to interact with working veterinary staff and animals, the nature and intensity of live veterinary action will vary, but the Impact Theatre will provide a 'filler' experience that is rich and powerful.

Operating Theatre - Operation Wildlife

The skill of the surgeon is all that lies between success and failure for wildlife patients of all shapes and sizes. The surgeon's expertise, technology and innovation combine to ensure a future for each individual. While surgery is by nature invasive and disruptive - ultimately life is repaired and restored.

Visitors enter the viewing gallery of the Operating Theatre. Beyond the theatre space, the vet and vet nurse can be seen in the scrub room preparing for the patient. The anaesthetised patient is wheeled in on a trolley and transferred to the operating table. A large glass screen separates visitors from the patient, providing a protected environment.

The patient history comes up on the plasma screen - along with any relevant images. The visitor now knows the identity of the patient and its diagnosis, which requires surgical intervention. With the aid of microphone headsets - staff are able to communicate directly with visitors as they introduce themselves and briefly describe the procedure to be undertaken. From time to time during the procedure staff interpret the action, providing a rare insight into many aspects of wildlife surgery, including demonstration of specialised equipment and surgical techniques. In downtime the Operating Theatre is features illuminated specialised equipment, while a TV monitor provides interesting footage of surgical procedures and the journeys of patients pre- and post-operatively.



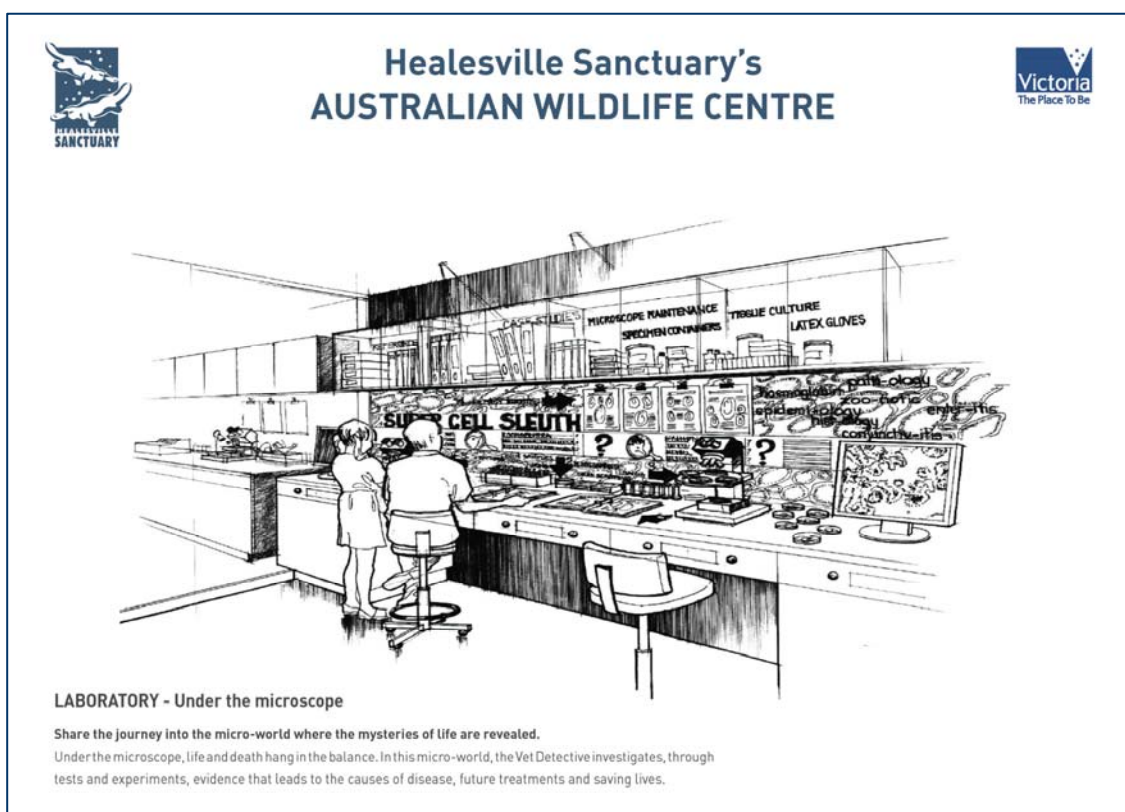
Laboratory - Under the Microscope

Under the microscope, the mysteries of wildlife health are revealed. While this micro-world may look strange and fantastic to you and me, the trained eye of the Vet Detective finds clues and evidence that lead directly to solving the causes of disease, finding future treatments and saving lives.

Approaching from Surgery or Emergency, the visitor sees a 'Vet Detective' working in the Laboratory. From their state-of-the-art 'Coolscope' microscope, amazing images are beamed onto a plasma screen. The Vet talks through their fascinating findings via two-way audio, and shares with visitors how the Lab can help to investigate the causes of disease, or solve the mystery of an animal's death.

Visitors can learn about the causes of wildlife disease, through bodily fluids that allow an amazing pathway to diagnosis. Faeces, urine, blood and tissue are used - just like in human health, to help make a diagnosis. This story is a feature of the Laboratory interpretation.

Then it's a visit to the Interactive Lab where visitors look down the microscope - and make their own diagnosis through selected case studies. The visitor slips-on the shoes of the Vet Detective - and through a self-guided activity - learns about the amazing process of disease investigation.



Emergency - Chance of a lifetime

In Emergency, every minute of every life counts. Our animal health specialists have the unique ability to care for wildlife, but also have the responsibility of making difficult life and death decisions. Underpinning every decision is respect for all life and the restoration of quality of life.

The red emergency light is flashing on the main menu board to indicate that a wildlife emergency is in progress. Visitors make their way to the ER, where they become part of the action, sharing the process of assessment, diagnosis and treatment. Visitors gain an understanding of key veterinary skills and the complexity and difficulty of the decision making process.

A range of diagnostic tools provide a multitude of interactive opportunities with the vet, as various body systems, structures and functions are evaluated.

Visitors are challenged emotionally as they are faced with the delicacy of life and the pressure of making an accurate diagnosis and formulating a treatment plan without delay!



Rescue - To the Rescue

An act of kindness in the right place at the right time will change an animal's life and your life forever. The powerful experience of helping an animal brings many rewards. From the moment of your decision the journey will begin and an enduring connection forged - never to be forgotten.

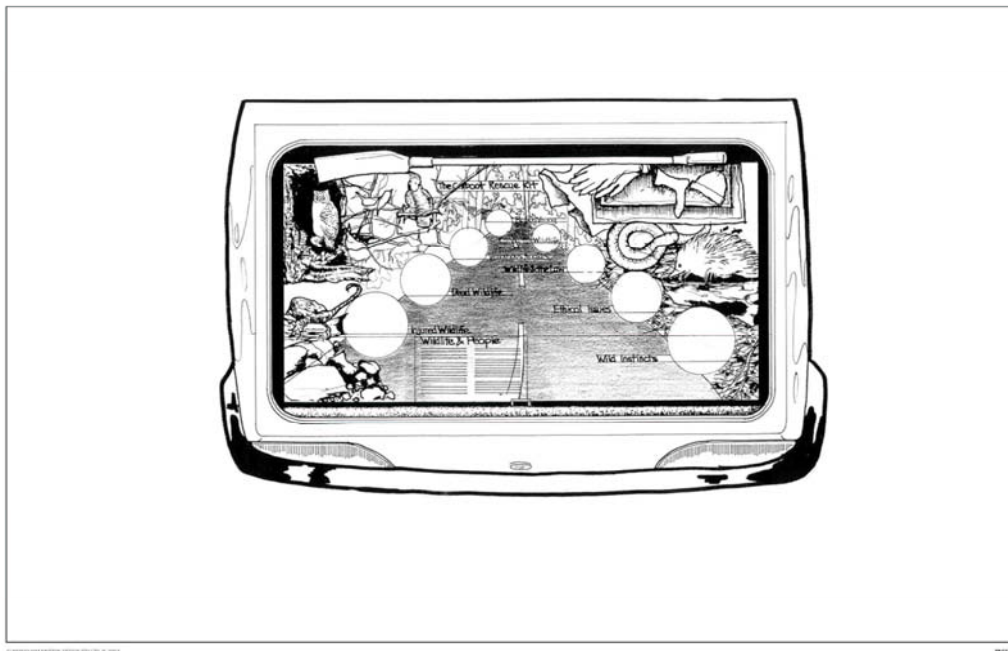
Visitors come across a car boot, which connects them to the idea that many animals arriving at the AWC do so as a result of road trauma. Here, visitors find out about wildlife rescue including; wildlife and the law, human safety around injured animals and the basic first aid do's and don'ts.

Visitors learn that they can be prepared for wildlife rescue just by keeping a few essential rescue items in their car boot including everyday items such as a pillow case and string, cardboard box, old towel or blanket.

Visitors will also get the know-how and the low-down on rescuing wildlife and importantly - where to take them. Help is close at hand and expert help at Healesville Sanctuary is only a phone call away.

Visitors will take away a handy car item with emergency numbers and first aid hints and may decide to purchase a special wildlife rescue kit they can keep in the boot if they find themselves in the role of a wildlife rescuer!

PREPARED FOR THE HEALESVILLE SANCTUARY AUSTRALIAN WILDLIFE CENTRE DESIGN DEVELOPMENT OCTOBER 2004	RESCUE "CAR BOOT" EXHIBIT
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Post Mortem - Body of Evidence

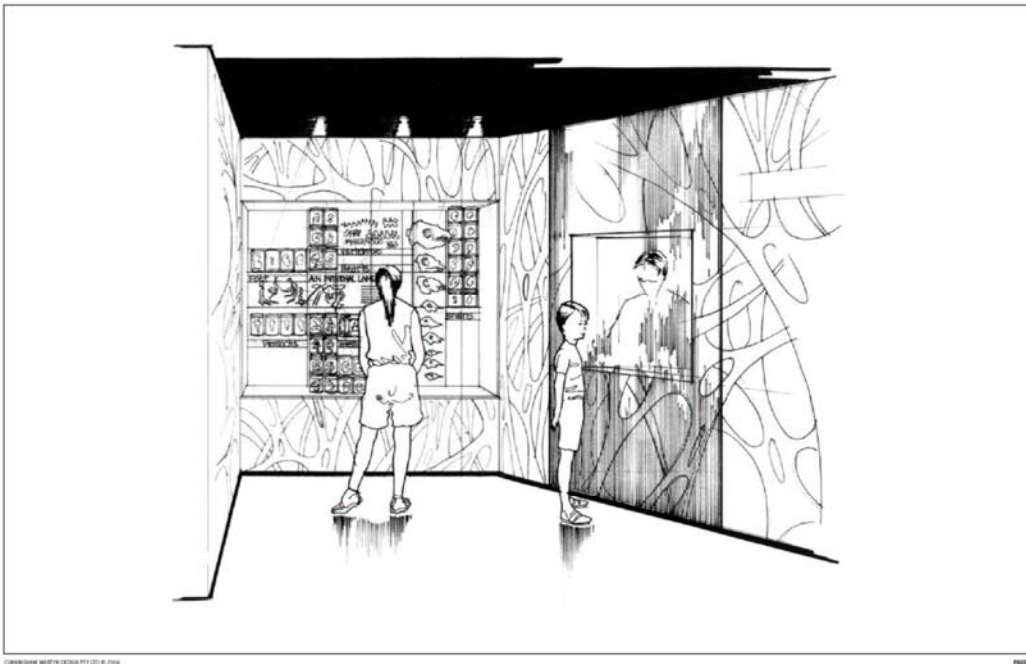
A life's end is a journey beginning. The story of an animal's death is a mystery that unfolds through the process of post-mortem. By examining each body system, the animal's life is reconstructed and the secrets of life and death unfold.

Visitors approach the Post-mortem area from Recovery or Rescue. As they approach they are alerted to a post-mortem in progress by a light and written warning. They are further protected from entering by a screen barrier. Visitors make a personal choice whether or not to enter.

Choosing to enter, the visitor sees the Vet performing a post-mortem. The Vet talks through the procedure and engages with visitors, offering an insight into the value of finding out why an animal died.

When there is no action in the Post-mortem area, visitors gain an understanding of the post-mortem procedure, through an interpreted case featuring a Kangaroo with Toxoplasmosis. This story leads us through the CSI style process of post-mortem, offering insights into instruments and techniques used, post-mortem reports, and the very specific 'jargon' of the vet used in post-mortem. A diagnosis or conclusion wraps up the case, CSI style.

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Care and Recovery - In Good Hands

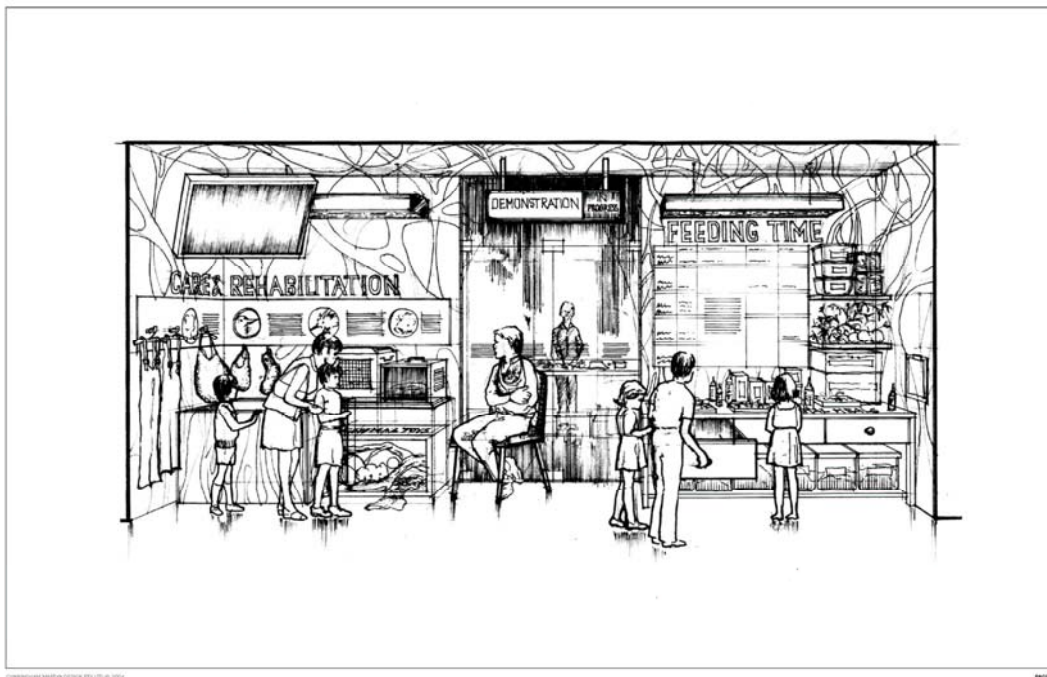
Relationships between humans and wildlife patients are made to be broken. The level of care required for each individual varies from intense one-on-one, to 'hands-off.' Finding the balance of care, while preserving wild instinct is critical to achieving the hoped for outcome of breaking the bond and letting go.

Care and Recovery offers visitors an insight into the hospital wards. Views into two wards are accessible from the gallery, but visitors may also take the opportunity to accompany a Keeper on a ward round, where they will gain a special insight into the care of sick and recovering patients. A view into the food preparation area provides an understanding of the importance of nutrition in the overall care and recovery story.

Discover the very different needs of each animal, including the type of hospital bed they require, pacifying toys and the crucial role of nutrition in recovery. Visitors will view real patient charts, get an understanding of the range of medications and treatments administered, and understand the importance of close patient monitoring for successful recovery.

A fun interactive activity for kids' allows them to choose foods appropriate for a range of soft toy patients in a series of interactive pullout draws.

PREPARED FOR THE HEALESVILLE SANCTUARY AUSTRALIAN WILDLIFE CENTRE DESIGN DEVELOPMENT OCTOBER 2004	RECOVERY REHABILITATION
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Reintroduction - Going Wild

Wild creatures deserve freedom and independence. Our job is to restore and preserve this natural order. Behind every successful reintroduction is a well-formulated plan that prepares each patient for return to home ground. Our responsibility ends only when we can demonstrate an individual's true independence and ability to survive.

Visitors engage with a variety of stories that help them gain perspective on reintroduction - one of the most challenging aspects of successful wildlife care.

Visitors learn many aspects of reintroduction including the challenges of getting an animal back to a fitness level that ensures survival in the wild. They understand the complexity of reintroduction through a 'check-list' for survival.

Interacting with a pulse-oximeter, visitors can also measure their own heart rate and compare it to a range of other species. Hearts - from the tiniest animal heart to the human heart, along with their sounds, rates and rhythms are demonstrated via stethoscope.

Technology is another aspect of reintroduction. Visitors interact with a real transmitter used by staff to track and monitor the wellbeing of an animal post-release.

Through all experiences at the AWC, visitors will feel that they are part of the wildlife picture and that all living things are connected. The unifying idea that wildlife and humans share the same basic needs for survival and have far more similarities than differences - is featured as an 'end point' to the AWC journey.

PREPARED FOR THE HEALESVILLE SANCTUARY AUSTRALIAN WILDLIFE CENTRE DESIGN DEVELOPMENT OCTOBER 2004	RELEASE & MONITORING
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Conclusion

Unlike any other veterinary hospital in the region, the Australian Wildlife Centre will help people to reconnect with wildlife, to become unified with a desire to make a difference, and to work together to guarantee a healthy future for all living creatures.

Acknowledgements

The authors would like to acknowledge the support of the great many people who have enabled this concept to become a reality. In particular, to the board of Zoos Victoria for fostering and supporting innovation, the CEO (Laura Mumaw) and the two Directors of Healesville Sanctuary, John Gibbons and Matt Vincent, who have presided over the project development process, we say thanks. Minifie Nixon, Architects, who have given structural integrity to our ideas and shown a fine balance of art and science in their design. Cunningham Martin, interpretative designers, for their patient understanding of our desire to create a valuable and memorable visitor experience with their clever use of physical and non-physical elements. The staff of Healesville Sanctuary, particularly the animal husbandry division, have had an enormous input into the project. Staff from Melbourne Zoo, most importantly the divisions of Discovery and Learning and Information Technology, Jen Aughterson and Paul Bamford, have provided technical expertise and led major project components. Also to the administrative head of the project Tony Kotevski, whose guidance has kept us on time and on budget, thanks. Lastly to the veterinary staff who have not only participated energetically in the design process but who have committed themselves to the unknown and have invested in the future success of this facility with great enthusiasm, grateful thanks.