

Implementing and Consolidating Visionary Management Principles

- Successive management regime at the Asahiyama Zoo

Tatsuya DEGUCHI

This paper discusses the generation, implementation and consolidation of management principles at Asahiyama Zoo, Hokkaido, Japan. The zoo attracts 2.5 million visitors annually, receiving much attention despite its limitations, such as being inconveniently located in the northernmost part of Japan, limited open season and visiting hours, the average size and the paucity of popular and rare animals such as koalas or pandas. Asahiyama Zoo has gained popularity owing to the innovative methods of exhibiting the animals' dynamic way of living; the constant renovation of animal enclosures; interactive, experienced and amicable staff; and authentic local meals and souvenirs available at the zoo. These key factors are given additional depth by the zoo's underlying image as the embodiment of 'the ideal zoo'. The essence of Asahiyama Zoo in the truest sense, however, is based on the constant re-evaluation of its principles and objectives, the systematic implementation of initiatives to bring these to reality and the propagation of these results to the next generation, who is responsible for further development. Successive directors have urged that the zoo's principles be internalized and implemented, then passed on for further development; their outstanding leadership has chiselled the organisational capabilities that have achieved the creation of an unparalleled zoo. Their principles have not only been inculcated and reinterpreted within the walls of their own zoo but also had a major impact on the operational policies of other zoos.

Keywords: Zoo, Management principle, Implementation and consolidation, Organisational capabilities, Leadership

1. Introduction

This paper aims to examine the generation, implementation and consolidation of management principles at zoos, by exemplifying Asahiyama Zoo in Hokkaido as the focal point.

Asahiyama Zoo in Hokkaido, along with Ueno Zoo in Tokyo, is one of Japan's most exemplary zoos and has recently received considerable attention, attracting more than 2.5 million visitors annually.¹⁾ It has managed to gain popularity despite the zoo's inconvenient location, i.e. in the northernmost part of Japan, and it being shut for prolonged intervals every spring and autumn for winter preparations. In winter, the zoo is only open for five hours a day (10:30 AM to 3:30 PM), due to low temperatures and early sunsets in Asahikawa. Asahiyama Zoo is an average-sized Japanese zoo and has no popular or rare animals such as koalas or pandas. Moreover, the zoo is a 30-minute drive away from the city centre and the Asahikawa Airport; thus, it is not only inconveniently located,

but, being built into a hillside, also requires visitors to climb stairs and inclines. Furthermore, the zoo has an unfavourable management environment because it is government-owned, lacking flexibility otherwise observed in privately-owned organisations. Nonetheless, the number of visitors peaked in 1983, after which it gradually declined, threatening closure.

The zoo's recent, sudden rise in popularity is because the visitors' positive response toward various innovative endeavours to break the stereotype of a traditional zoo. In particular, the 'dynamic exhibits', introduced in 1997, were widely



advertised through mass media. Since then, the zoo gained nationwide popularity within a short span of time.

The essence of Asahiyama Zoo in the truest sense, however, is the constant re-evaluation of its principles and objectives, the systematic implementation of initiatives to bring these to reality and the handing down of these results to successive generations, from who further development is expected. Note that the dynamic exhibits are only part of the various initiatives; there exists a firm foundation, built on unwavering principles. The zoo's strong managing body, comprising original zoo director, Hiroshi Kanno, chief manager, Masao Kosuge, and the current director Gen Bandō, advocated that the zoo's principles be disseminated and implemented, then passed on for further development. This leadership has shaped the organisational capabilities²⁾ that would achieve the creation of an unparalleled zoo. This paper continues to focus on these aspects as well as advance the following considerations.

2. Why did the Popularity of Zoos Decline?

Zoos were one of the most frequented recreational facilities. However, since the 1980s, many zoos have become unprofitable due to declining visitor numbers. Moreover, in the past decade, many zoos have closed, particularly those located in regional cities. Three causes can be pointed out for this decline.

- *Diversification of recreation:* The primary cause is the diversification of recreation. While zoos attracted visitors by means of exhibiting animals from around the world, which were highly fascinating, the emergence of alternative recreational facilities made zoos one of numerous options.
- *Deterioration of facilities:* The second identifiable factor is the deterioration of facilities. Zoos are expensive to establish and maintain. The cost of feed and hygiene management for a large variety of animals is also a considerable expense. Moreover, a limited budget renders little funds for building and repairing animal enclosures. Thus, inadequate maintenance of the facilities causes them to deteriorate, resulting in declining visitor numbers.

- *Outdated operational policies:* The third factor is the outdated operational policies. Many zoos in Japan have cramped enclosures for each species due to space constraints and use traditional 'static exhibits' as a method of displaying animals. Further, they have dilapidated display and information boards with academic content that is illegible and incomprehensible. Moreover, it does not educate visitors with essential information, such as animal behavioural characteristics. Few zoos offer delicious meals and interesting souvenirs. In summary, many zoos continue to operate day after day without ever stopping to re-evaluate their management methodology. Therefore, zoos are no longer a popular choice owing to their substandard services that are in no comparison to those of theme parks and other major recreational facilities, which focus on the demands of the visitors.

3. Why are people attracted to Asahiyama Zoo?

How has Asahiyama Zoo managed to attract more than 2.5 million visitors annually, particularly when the popularity of zoos are at a decline? Asahiyama Zoo has managed to overcome the public's dissatisfaction with zoos by incorporating several innovative forms of 'amusement' that cannot be experienced elsewhere as demonstrated below.

Introduction of 'Dynamic Exhibits'

The first unique initiative is the proposal of a new method of exhibiting animals (Kosuge, 2006; Weekly SPA Editorial Committee, 2005; Tada, 2005; Harako and Kamehata, 2005; Bandō, 2006; Furudate and Shinozuka, 2005). In contrast to the 'static exhibits' seen in many zoos in Japan, Asahiyama Zoo has developed ways to observe animals under dynamic settings, exhibiting the natural behaviour and abilities of the animals and incorporating elements from their 'habitat'. This initiative was made in an attempt to show animals in their natural state of being. Below, exemplary dynamic exhibits at Asahiyama Zoo are discussed.

(1) Totori's Village (launched in 1997)

Totori's Village was the zoo's first dynamic bird exhibit. Traditionally, to prevent birds from flying

away, zoos would clip their wings. At Asahiyama Zoo, however, people can observe birds in flight first hand by entering the enormous bird cage.

(2) Macaque Mountain (launched in 1997)

This facility has an environment that integrates artificial as well as real rocks and trees to elicit the natural behaviour of macaques in the wild. Monkey enclosures are structured with artificial mountains at the bottom of a deep basin, so that people can observe the monkeys from a height. In contrast, Macaque Mountain in Asahiyama Zoo is built much higher than the viewing area, such that the macaques can look down at the humans. This is devised to prevent excessive stress on the macaques, who dislike other creatures in or around their habitat. In the wild, macaques spend most of their time looking for food. Thus, Asahiyama Zoo has designed various mechanisms to ensure that the monkeys spend sufficient time looking for food. This prevents the monkeys from losing their natural behaviour, in which they must use their brains to find food. Macaques, however, are very good learners, constantly challenging the keepers to invent and introduce new ways to make the monkeys search for their food.



(3) Fierce Animal Exhibit (launched 1998)

This facility is an exhibit for animals from the feline family. Ferocious animals are generally kept under strict control to prevent any mishaps. However, Asahiyama Zoo has focused on developing ways for visitors to observe these animals from various angles and such a close distance that visitors could possibly hear them breathe and even smell them, without compromising on all possible precautions against casualties. For instance, the mesh used around the enclosures is much finer than that used for other animals. Taking advantage of the characteristics of human vision, the mesh is

narrower in the vertical direction and wider in the horizontal direction. This makes it easier for visitors to see the animals and get close enough to even be urinated on! Feline animals, such as Amur and Snow Leopards are nocturnal and sleep in the trees during the day. Taking note of these factors, the zoo management designed cages that hang over empty space. This way, for the first time, while the animals sleep in these cages, visitors can observe them by standing directly underneath. The enclosure is designed in such a way that visitors can also climb the stairs to have an expansive view of the animals' habitat from a height.



(4) Penguin House (launched in 2000)

Traditional penguin enclosures only allowed visitors to observe penguins walking on land or swimming in pools from above or alongside the enclosure. Certain zoos also had muddy pools, in which visibility is extremely low. In contrast, Asahiyama Zoo has a fence so close to the enclosure that visitors can almost reach out and touch the birds. In addition, the facility has a deep pool with a clear acrylic plastic tunnel running through it, which visitors can enter and observe the penguins swimming, giving the impression that they were flying.

(5) Polar Bear House (launched in 2002)

This facility has a multi-level structure that allows visitors to observe the polar bears' habitat from various angles, both indoors and outdoors. There are two translucent domes within the enclosure, in which visitors can have the rare experience of viewing polar bears walking past or even swooping at them, as though their peering heads were prey. Moreover, similar to those in aquariums, one wall of the enclosure also has clear acrylic panels mounted in it, which allow visitors to observe the bears diving and swimming in the pool.



(6) *Seal House (launched in 2004)*

This facility comprises a pool with clear acrylic panels for visitor viewing and a cylindrical acrylic tunnel running vertically through the middle of the viewing space. The seals can swim freely up and down this tunnel. Only at Asahiyama Zoo can visitors crowd 360° around a vertical tunnel and observe seals swimming at such close range.

(7) *Orangutan Enclosure (launched 2001) and Orangutan House (launched 2005)*

The orangutan enclosure has a play area linked using ropes suspended from the cage, forming an aerial playground 17 metres off the ground. The facility shows orangutans travelling through the air holding onto the suspended ropes and trapezes. However, no safety measures have been taken for the aerial playground such as safety nets or fences, allowing visitors to observe the orangutans from directly below without any obstructions. Nevertheless, because orangutans rarely walk on the ground, they are extremely cautious by nature and can sustain much more than their own body weight; thus, there is little risk of them falling or being injured. The orangutan house is a 7m-tall indoor space with rock climbing holds, a giant hammock and numerous suspended ropes. This facility allows visitors to observe animals' behaviour indoors from a much closer distance than the outdoor enclosure and without the obstruction of a mesh or glass.

(8) *Chimpanzee Forest and Chimpanzee House (launched 2006)*

This facility comprises the chimpanzee forest for outdoor viewing, and the chimpanzee house for indoor viewing. The chimpanzee forest allows visitors to observe chimpanzees playing with different types of play equipment from various angles by going through a semi-circular clear

acrylic passageway called the 'Sky Bridge'. Thus, the chimpanzee house gives visitors the opportunity to observe the chimpanzees' habitat through the glass in detail and from close range.

Thus, the above-mention 'dynamic exhibits' at Asahiyama Zoo are designed with the aim of providing 'entertainment' and 'fun' to the zoos' visitors. Next, the distinguishing characteristics that are key to maximising this 'fun' are outlined.

- *Animal-Oriented Facilities*: It is essential to consistently have animal-oriented facilities (Kosuge, 2006: 50–71). Asahiyama Zoo provides its animals with living environments that allow them to exhibit as many of their natural traits as possible. This initiative is called 'environment enrichment', which aims to show animals in their natural state by creating an environment that they are happy to live in.
- *Diverse Viewing Spaces*: The second key is having viewing spaces that allow diverse viewing angles (Weekly SPA Editorial Committee, 2005: 80–81). Besides having pathways, which visitors can gather around certain enclosures and look up or down from a vantage point, the zoo also has pathways through the centre of facilities, such as the Penguin House or the Chimpanzee Forest. The seal viewing space is divided by a tunnel, through which the seals can swim, while the enclosures for the ferocious felines are cages suspended over empty space, allowing visitors to have the first of its kind view of animal behaviour and habitats.
- *Viewing Areas for Humans and Living Spaces for Animals*: The third key is aiming for as much compatibility as possible between the viewing areas and animals' living spaces (Kosuge, 2006: 59–64, 76–104). The presence of humans, the sound of their voices and being under their constant gaze is often a cause of stress for zoo animals, causing illness or endangering their lives. Although the animals have a constant supply of food, the enclosures offer little variation in their daily lives. Thus, the introduction of dynamic exhibits at Asahiyama Zoo has made good use of the presence and movements of visitors to provide animals with moderate stimulation as well combating monotony in the animals' lives. It provides positive stimulation to the animals, drawing out their natural behaviour, which visitors can

observe from various angles. These exhibits are animal-oriented and thus the underlying objective of the viewing spaces is not to intrude on the animals, but proactively enrich their living environment.

Asahiyama Zoo successively created animal enclosures according to its unique method of exhibition, gaining nationwide attention and successfully attracting numerous customers. However, as previously mentioned, the true essence of the zoo is that every staff member constantly re-evaluates the zoo's role and mission and aims to steadily achieve these objectives, focusing on long-term goals. The dynamic exhibits are the embodiment of the principles that Asahiyama Zoo has actively pursued; however, the exhibits are only one of the factors that contribute to Asahiyama Zoo's success. Thus, to understand the true attraction of Asahiyama Zoo it is essential that we assess collectively the various other initiatives taken by the zoo.

4. Implementation of the Principles at Asahiyama Zoo

Asahiyama Zoo's Role and Mission

What are the principles of Asahiyama Zoo? The zoo has a four-fold role and mission: to be a place of (1) recreation, (2) education, (3) nature conservation and (4) enquiry and research (Kosuge, 2006: 23). In the words of chief manager Kosuge, the zoo is a place where people can have an incredible experience with the animals, witness the magnificence of animal life as well as be educated and enriched with new information, provoking them to ask: 'What can we do to protect the environment in which the animals live?' In addition, it is a place that actually facilitates 'protecting and breeding endangered species' and fosters medical research for wildlife (Kosuge, 2006: 22-23).

Thus, zoos should no longer be perceived as mere recreational facilities. In fact, many zoos today claim a similar role and purpose for their existence, in contrast to Asahiyama Zoo, who was able to implement this relatively early owing to the management principles shared by their staff.

In particular, the study groups, held at least once a month since 1975, have played a significant role

in developing the zoo's principles (Kosuge, 2006: 21-22). Although the study groups were initiated to facilitate knowledge sharing between senior zoo keepers and new recruits, they gradually became opportunities to develop reports on topics such as the exhibits, breeding of animals under their care and potential research topics. Thus, these study groups laid the foundation for a new tradition of a regular, on-going and genuine information exchange, leading to an academic and hands-on approach.

The continued decline in visitor numbers, following its peak at 597,000 visitors in 1983, is one of the major factors that shaped the management principles at Asahiyama Zoo. While examining the zoo's history, we learnt that in 1982 work on the last animal enclosure was put on hold, probably because the zoo had planned to expand its recreational facilities the following year by introducing rides and other large-scale entertainment equipment. This signifies the decision by Asahikawa City, the higher governing body, to improve the facilities at the zoo (Weekly SPA Editorial Committee, 2005: 31-32). However, transforming the zoo into an amusement park did not affect the declining visitor numbers. Instead, it further reduced its attraction as a zoo, as the animal enclosures continued to deteriorate. Moreover, the situation got so serious in the late 1980s that then director Kosuge recalls thinking that 'if there was a ranking for 'the oldest facilities at a zoo in Japan', Asahiyama Zoo would receive top ranking' (Kosuge, 2006: 21).

This state of affairs made the management think about what they could achieve by brainstorming, albeit with a limited budget. This was not simply a matter of tactical countermeasures. The management and staff began to deliberate potential next steps, the image they could develop through the methods of rearing and treating the animals. The zoo took the stance that they should make the city government and the mass media their allies, and the zoo keepers should be more proactive. The zoo implemented the initiatives listed below (Kosuge, 2006; Weekly SPA Editorial Committee, 2005; Furudate and Shinozuka, 2005; Tada, The Right Stuff Office, 2005; Harako and Kamehata, 2005).

(1) Zoo Keepers as One-Stop Guides (commenced in 1986)

Since zoo keepers are more acquainted than anyone with interesting approaches to observe the peculiar behaviour and traits of animals, they could pass on this information to interested visitors. This would certainly appeal to the visitors and perhaps reduce the declining visitor numbers to a certain extent. Zoo keepers are thus one-stop guides who can provide information on the animals under their care.

Although this idea took six months to be officially implemented, it was already common for zoo attendants or superintendents to guide visitors around the zoo. However, there were few zoo keepers who were not confident to speaking in front an audience, and many of them resisted the idea. Nevertheless, since it was an initiative that could be implemented without a financial outlay, the keepers agreed to participate after much persuasion, provided they could do it in their own way. Dialogue between visitors and zoo keepers and questions put forward by the former, unexpectedly led to the next initiative.

Night Zoo (commenced in 1987)

As previously mentioned, feline animals are nocturnal and demonstrate most active behaviour in the evening. Night-time activity, however, is not limited to feline animals; in fact, other animals also demonstrate different behaviour. However, because zoos are open till sunset, these behaviours are only known to zoo keepers. Thus, Asahiyama Zoo implemented a night zoo programme in 1987, and extended their visiting hours until 9:00 pm for several days in August; this initiative increased the popularity of the zoo. Incidentally, since this programme requires no expansion of facilities, many zoos across the country implemented similar programmes.

(3) Winter Zoo Tours (commenced in 1990)

Since Asahiyama Zoo is situated in a location with low temperatures, not many visitors are expected in winter. Until 1989, the zoo would remain closed for long periods during winter. However, sights, such as giraffes and elephants frolicking in the snow or seals sticking their heads through holes in the ice, are unique in the north of Japan. The limited-duration winter zoo tours were introduced

as uncommon experiences to take advantage of and appeal to visitors. The most popular winter activity at Asahiyama Zoo is watching the penguins walking, which has been the main attraction for visitors since the zoo established winter opening hours in 1999.

(4) Mogu-mogu (munching) Time

'Mogu-mogu Time' (munching time) is an event open to the public in which zoo keepers feed the animals while giving commentary. The various facial expressions of animals, the food they eat, how they eat and how much they eat are only some of the attractions of this activity. This event is a variation of the one-stop guide system. While it allows visitors to enjoy watching animals being fed, it also provides zoo keepers with the opportunity to spread awareness of the importance of conserving the global environment.

(5) Creating Handwritten Panels

Asahiyama Zoo has various handwritten panels displayed all over the zoo. The 'Hmm Panel' has easy-to-understand information based on the habitats and behaviours of various animals, accompanied by hand-drawn pictures. There are also signboards that display the latest activities in the zoo, information in column-form and warnings.

Information panels at zoos are generally printed on durable materials, such as plastic, metal or wood. At Asahiyama Zoo, the practice of using such panels had been passed down from time when there were budget constraints for such fancy signboards. The signs are always handwritten and sometimes re-written, constantly providing visitors with the latest information. They are personally written by the keepers, giving visitors a warm, home-made feeling.



(6) Notification of Births and Deaths

Among the handwritten panels are the notifications of the animals' births and deaths and those transferred to and from other zoos. The zoo notifies visitors of the annual births, deaths and transfers of the animals on these handwritten signs, which not only emotionally impact visitors but also emphasize how precious these animals are.



(7) Other Initiatives

Other initiatives include guided tours by keepers into a side of the zoo not usually seen by the visitors, publication of periodicals, summer school for children in the fifth and sixth grade, 'animal classrooms' for children and their parents and picture book reading that features books about the animals.

These programmes were implemented in line with Asahiyama Zoo's four-fold role and mission. Moreover, although there was no immediate or significant increase in the visitor numbers, the number of visitors who understood the zoo's operational policies increased, laying a foundation that later brought about a substantial growth in the numbers.

5. Implementation and Inheritance of Management Principles by the Three Leaders

Thus far, various activities introduced to implement the principles of Asahiyama Zoo have been examined. It should be noted that Asahiyama Zoo did not always carry the image of 'the ideal zoo'; faced with a limited budget and outdated facilities, the zoo did all that was in its capacity creating opportunities such as study groups for the free exchange of ideas, constantly reviewing the zoo's mission and role, taking some risks initiating new programmes and sharing knowledge through various experiences. Thus, the zoo could aim at

becoming 'the ideal zoo' and developing organisational capabilities that would achieve the creation of an unparalleled zoo.

Undoubtedly, we cannot neglect the presence of the leaders who were responsible for this shift; the inaugural zoo director, Hiroshi Kanno, former director, Masao Kosuge, and current director, Gen Bandō, are the leaders who have not only overseen the initiatives that are based on zoo's principles but also contributed significantly to increasing the zoo's organisation capabilities, by passing on these initiatives to their successors. We examine this in detail below.

Kanno's directorship (1985–1995)

Original zoo director Kanno's tenure was a very difficult time for Asahiyama Zoo, with the zoo suffering a decline in visitor numbers, deterioration in facilities and a temporary closure of the zoo due to an echinococcus outbreak. However, it was also a time of exploring new opportunities and various initiatives, which would define the future scope of the zoo. In particular, the programmes implemented as a result of the ideas exchanged at the study groups, such as one-stop guides, handwritten panels and behind-the-scenes tours of the zoo, resulted in opportunities for visitors to interact directly with the zoo keepers. These opportunities in turn led to further ideas for various other initiatives.

A major outcome of these initiatives was being able to gauge the level of curiosity the visitors had about the animals. For example, many visitors participating in the one-stop guide programme developed greater familiarity and interest in the characteristics and traits of the animals. Further, they were able to relate to the stories narrated while seeing the animals right in front of them, rather than learning from general information in a reference book. There was no significant difference between the adult visitors and children in terms of their knowledge about the animals. Moreover, because it was second-nature for the zoo keepers, they were able to make the information interesting not only for the children but also for the adults. Thus, regardless of the weather or time of day or year, interest in the animal habitats grew, bringing in more visitors. This was seen from the opening of the night zoo and winter zoo tours during zoo

director Kanno's tenure.

Kanno provided several opportunities to discuss more appealing ways to exhibit the animals (Kosuge, 2006: 43-47; Weekly SPA Editorial Committee, 2005: 43-47). However, because at the time they were faced with budget constraints, ideas could not have been discussed as freely, making it essential for the management to focus on practicality and feasibility. He would often ask questions, such as 'How can we design a facility that will allow visitors to observe animal behaviour in a more interesting way?' Thus, under the management of Kanno, staff members were encouraged to present innovative ways to exhibit animals; we came across some sketches of a few of their interesting ideas.³⁾ Evidently, these discussions went beyond seeking ways to exhibit animals and developed into discussions based on the purpose and objective of the zoo's existence.

To gain the trust of the visitors, Kanno openly disclosed the fact that the zoo was facing difficult times as an organisation (Kosuge, 2006: 110-114). This can be seen in the way in which the zoo handled the echinococcus outbreak in 1994. Echinococcosis is an infectious disease caused by parasite eggs found in the excrement of foxes. These parasites enter and multiply within the bodies of other animals, impairing liver function and resulting in death. Echinococcosis does not have to be officially reported, because there are simple precautionary methods that can be taken by humans, such as washing their hands. Moreover, the zoo could have avoided a situation of unnecessary concern and panic by simply notifying them that the required precautions were taken within the zoo. However, after consulting with then his staff members Masao Kosuge and Gen Bandō, Kanno decided to disclose the whole truth to the public. This choice led to a temporary closure in 1994 and a subsequent decline in visitor numbers from the following year onward. In 1996, the number of visitors dropped to just over 260,000, the lowest since the zoo opened.

Although the decision to 'disclose the truth honestly' impacted the zoo negatively in the short term, it raised people's trust in Asahiyama Zoo in the long term. Had the zoo decided to cover-up the truth, the zoo could have escaped the mid-season closure and financial loss due to harmful rumours that followed. However, if the truth had

been concealed, only to be exposed later, it is conceivable that the damage would have been far greater than that caused by the voluntary disclosure. Thus, by taking the necessary precautions and disclosing everything to the public, Asahiyama Zoo sought to regain the understanding and trust of the public. Looking back, not only was this decision appropriate but it also had a definitive impact on the initiatives that followed at Asahiyama Zoo.

Kosuge's directorship (1995-2009)

Kosuge took charge of the office as zoo director Kanno's successor. Although he gained authority at a time when the zoo had closed due to the echinococcus outbreak, the worst possible scenario, Kosuge, from the beginning, assumed Kanno's visionary mission: to unite the zoo staff to achieve the image of 'the ideal zoo', and went on to further develop this vision.

In 1997, for the first time in 16 years, a budget of ¥100million was approved for new animal enclosures. This provided an opportunity to achieve the zoo's ambition of building 'the ideal zoo', almost facilitating a dramatic 'miracle of resurrection' (Weekly SPA Editorial Committee, 2005: 67-69). Newly elected mayor Kōichi Sugawara promised the public a new recreational facility. He abandoned his original plan for an aquarium and turned his attention to his second choice -refurbishing Asahiyama Zoo- and offered the new director Masao Kosuge the opportunity to discuss the options.

Kanno and Kosuge had visited the city office many times with budget requests, but no new budget had been approved. However, the request for a discussion finally came from the council, which was the chance of a lifetime. On behalf of the zoo, Kosuge appealed to the mayor, explaining to him how vital the zoo was and passionately presenting the various plans the staff had worked on during their ongoing discussions. As luck would have it, Asahiyama Zoo was also going to celebrate its 30th anniversary in 1997; the commemoration provided an added point in the zoo's favour.

Thus, the combination of the mayor's public promise, the passion of the zoo staff and management, the new ideas and the sheer luck of an important year in the zoo's history resulted in

the approval of the budget to build the 'Children's Farms' and 'Totori Village'. The 'Children's Farms' are facilities in which children can pet the animals, while 'Totori Village', as outlined before, is very popular with visitors. The idea of an annual passport, introduced the same year, contributed immensely toward attracting revisits. There was an increase in visitor numbers for the first time in four years, with numbers returning to over 300,000 (Weekly SPA Editorial Committee, 2005: 74). Moreover, these results laid the foundation for a budget to be approved for the next round of new facilities. The continuous establishment of new facilities in turn led to variations and enhancements in the dynamic exhibits. Kosuge led the way, presenting plans for a new series of facilities and negotiating budgets with the council. In fact, the number of visitors increased as each new animal enclosure was completed.

Alongside the establishment of new animal enclosures, previous initiatives also continued. Zoo keepers were assigned the task of innovating new ways to exhibit animals and, in 1997, were designated as 'animal exhibit managers'. In 1999, the limited-hours winter zoo tours were officially scheduled as the winter opening hours. In 2001, the experimental 'Walk of the Penguins' was made into an official event (Kosuge and Iwano, Shima, 2006: 221-222).

Gradually the zoo began to introduce exhibits showcasing the behaviour and habitat of animals from Hokkaido, particularly those from the Ishikari River. The initiative by a local zoo researching the habitats of local animals and protecting and exhibiting local species, promoted the importance of a deeper understanding of the natural environment and their conservation (Weekly SPA Editorial Committee, 2005: 114-116; Furudate and Shinozuka, 2005: 62-64).

The zoo also experimented with an activity never before attempted in zoos: showing old animals and even those injured from traffic accidents and the like (Kosuge, 2006: 69-71). Thus, the initiative of showing such animals and announcing their births and deaths, aimed at making visitors reflect on the meaning and value of an animal's life as well as giving them an idea of the environment that wild animals lived in.

Asahiyama Zoo gradually worked its uniqueness into the food and souvenirs offered. The zoo

provides various local food items from Asahikawa and has several distinctive souvenirs and original goods unique to the zoo, thus adding interactively to its appeal.

Under the management of Kosuge, the four-fold mission embodying the principles of Asahiyama Zoo became more evident, serving as a guideline to gradually achieve the image of 'the ideal zoo'. The zoo is no longer perceived as merely an animal 'exhibition facility', rather its essence is to not only be a place where animals are bred and exhibited but also one that 'creates avenues to study and research the animals' and 'protect endangered species'. The zoo aimed to accomplish this by creating a 'dynamic environment in which animals are comfortable to live in', thereby enabling children and adults to 'enjoy learning' and understand the 'value of wildlife'. This principle, upheld under zoo director Kanno, was further developed by chief manager Kosuge and the animal exhibit managers. Kosuge, as the spokesman for Asahiyama Zoo, publicised through the mass media the various initiatives based on the four-fold mission, sending out a powerful message throughout the zoo industry.

Implementing the Principles through Exhibits under Gen Bandō

Gen Bandō, current zoo director and a former vice-director under Kosuge supporting his vision, also took on various initiatives at Asahiyama Zoo. While developing them further and playing a leading role in new initiatives, he oversaw the design and construction of the 'Fierce Animal Exhibition' as well as subsequent new animal enclosures. Bandō has also tested a number of challenging dynamic exhibits at the request of Kosuge (Bandō, 2006; Weekly SPA Editorial Committee, 2005: 76-104).

Bandō's basic principles for designing facilities are very clear: 'consider how you would want to behave if you were the animal'; 'ensure the facility allows the animals to behave freely'; and 'devise means for visitors to view the animals from as many angles as possible' (Weekly SPA Editorial Committee, 2005: 76-84). Zoo keepers have precise knowledge of the animals' behavioural traits; they understand factors causing stress to the animals as well as what the animals enjoy. In addition, they

are capable of designing animal enclosures. This manner of thinking is the basis for Asahiyama Zoo's unique approach to designing animal enclosures, in which animal exhibit managers play a leading role.

The most important characteristic of Asahiyama Zoo's dynamic exhibits is that visitors can view the animals' spontaneous behaviour. From an ethological perspective, this approach of designing structures encourages spontaneous behaviour, thus never having to train these animals or compel them to behave in certain ways. For example, the overhead cages in the Fierce Animal Exhibition are built on the premise that leopards are nocturnal and prefer to sleep during the day in places that are high up off the ground and sufficiently ventilated. Next, the cylindrical tunnel in the Seal House is primarily for the seals to swim through as and when they want to. All behaviour, such as orangutans swinging from ropes, polar bears diving and penguins swimming or walking, takes place at the whim of the animal. However, visitors may not always have the opportunity to view these behaviours. Nevertheless, if they are lucky, they will be able to observe the vibrant and intriguing behaviour of animals at close range in an environment that demonstrates the animals' natural abilities. This is the greatest distinguishing characteristic of the dynamic exhibits. However, a major issue has been raised about humans and wild animals coming face to face through these dynamic exhibits. According to Bandō, wild animals (1) do not trust other creatures; (2) cannot be trained; (3) have a dignified existence (Bandō, 2006: 5). Consequently, unlike domesticated animals or pets, wild animals are unable to coexist in the same space with humans. Moreover, trespassing onto their living space is an affront to their dignity. At Asahiyama Zoo, the idea is to take safety precautions, such as impassable boundaries between humans and wild animals, as well as created opportunities for visitors to interact with the animals from a close range.

It is on this idea that the dynamic exhibits at Asahiyama Zoo are based. They are designed in such a way that humans can interact with the wild animals, without ever having to come into direct contact with each other. By constantly reiterating through various media that 'wild animals are not pets', the zoo advocates the significance of living in

harmony with wild animals, with whom humans have restricted interaction, as well as the importance of conserving the natural environment. Asahiyama Zoo allows the petting of only domesticated or trained animals at the 'Children's Farms'. Thus, as the supervisor of the new innovation, Bandō played a vital role in the further development of Asahiyama Zoo by designing the dynamic exhibits on the basis of the zoo's principles.

6. Conclusion

This paper examined the establishment and succession of principles at zoos using examples from Asahiyama Zoo, which implemented a number of initiatives that were innovative and deviated from conventional practices at zoos. However, if we examine Asahiyama Zoo's four-fold mission and the several other initiatives now being adopted by many other zoos, its essence is clearly more 'authentically zoo' than more conventional ones.

Asahiyama Zoo does not have many endangered animals or animal acrobatic shows, and human-trained behaviour is discouraged as it is an affront to the animals' dignity. Instead, Asahiyama Zoo has set up facilities that support animals in their natural state of being, allowing them to live more freely.

Exhibiting rare species of animals and animal acrobatics are a zoo's ways of attracting visitors. However, comparing Asahiyama Zoo with other zoos, which simply peddle views of rare animals or tickets to animal shows, we may question which zoo treats its animals with greater respect? Which better shows the primal nature of wild animals: human-trained behaviour or animals' spontaneous behaviour? Which attracts visitors? When we look at visitor numbers, the answer is obvious.

Many fellow zoo keepers have visited Asahiyama Zoo, subsequently introducing dynamic exhibit facilities, inspired by Asahiyama Zoo's principles and initiatives.⁴⁾ Moreover, the growing concern of declining visitor numbers has led to this trend gaining momentum in other zoos. However, as mentioned, the method of operation at Asahiyama Zoo is inspired by its principles and built on the foundation of organisational capabilities that have been successively handed down and developed for many years. Further, these principles are inculcated

in every staff member. Thus, clever imitations of exhibition methods simply to boost visitor numbers lack originality and are seldom successful.

Nevertheless, we believe that in the future many zoos will begin to understand Asahiyama Zoo's grand-scale principles and vision of being 'the ideal zoo'. These ideals will spread to other zoos, which will also attempt to introduce innovative and unique initiatives, given their own circumstances. Thus, along with conforming to social norms, zoos should focus on the natural environment and bioethics. More importantly, zoos should implement principles that inspire their staff members to engage in their work with a sense of pride, purpose and meaning.

It will be very interesting to follow the future of Asahiyama Zoo unfold. The zoo, nevertheless, is currently dealing with new issues, such as overcrowding due to a sudden increase in visitors, visitor misbehaviour accompanied by a string of complaints and increasing numbers of animals being brought in and abandoned in the zoo.⁵⁾

How are the principles that have been cultivated by the director Bandō being passed down at Asahiyama Zoo? What are the subsequent initiatives being carried out? What are the initiatives taken by other zoos that have been inspired by the principles of Asahiyama Zoo? What changes are being introduced in the zoo industry as a whole? These questions can be the basis for further observation and analysis.

Notes

1) The data used in this paper on Asahiyama Zoo has been derived from the content posted on the zoo's website (<http://www5.city.asahikawa.hokkaido.jp/asahiyamazoo/>).

2) Capabilities to achieve certain tasks, formed by managing staff behaviour in order to achieve common goals. See Shibata and Nakahashi, 2003 for more detail.

3) These sketches, by former keeper and current artist Hiroshi Abe, later became widely known as 'The 14 Sketches' and are today used as prototypes for designing new behavioural exhibits.

4) In 2006, Ishikawa Zoo in Ishikawa and Tama Zoological Park in Tokyo introduced orangutan 'air walk' facilities.

5) The mayhem at the zoo is outlined in detail in the Fuji-TV series episode *Miracle Zoos 2007: Asahiyama Zoo*, aired on 11 May 2007.

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