

An Investigation of British Zoos: A Journalistic Perspective

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1984 was the year when the thought of zoos as benign places of entertainment was seriously challenged in the UK. Pole Pole, an African Elephant that had starred in the film 'AN ELEPHANT CALLED SLOWLY' with Bill Travers and Virginia McKenna died in London Zoo and gave rise to the whole debate on the ethics of keeping animals in zoos. Today even some captive animal institutions like the Cornwall Monkey Sanctuary admit that captivity is harmful for animals.

The fact that zoos might actually be awful prisons for animals is revealed by several experts and organisations in UK and around the world that are increasingly questioning the role played by collections of captive animals. They suggest that zoos in many ways represent a threat to endangered species and are just profit making businesses that have nothing to do with conservation.

Zoos have been around for thousands of years since people started collecting animals as symbols of power or curiosities. Individuals collected animals as status symbols and zoos signified the domination of man over nature. The birth of the 'modern zoo' ostensibly changed the ideology behind the concept. Zoos turned into scientific institutions. Or did they?

One of the institutions that exhibited animals during the imperial period was the Tower Menagerie of London. In a new book and TV serial, Daniel Hahn exposes the ghetto conditions in which animals were held at the Tower Menagerie in London from 1235 to 1835. The imperialistic nature of zoos was also a factor behind the founding of the London Zoo in 1826 by Sir Stamford Raffles. London Zoo collected animals from all imperial outposts during the heyday of the British empire. The imperialistic legacy of zoos is examined in article 1, A Legacy Of Imperialism ?

With the passage of time and the gradual extinction of the empire, the nature of zoos changed with trusts and charities running collections of animals for public show. Zoos seemingly changed from places of eccentric curiosity and

personal whim to rigidly controlled institutions. But the most famous zoos in UK, Howletts and Jersey, were both started by private individuals to serve their personal aims and whims. Till 1981, when the Zoo Licensing Act was passed, anyone could start a zoo in UK. And since Jersey and Howletts have both done remarkable work due to the eccentricities of their owners, their institutions testify that zoos in UK are very much dictated by priorities set by the people who run them. The issue of the private ownership of zoos is examined in article 2, *Zoos In Their Luggage ?*

Zoos in UK claim a stake in conservation education and recreation. Animal welfare The death of The elephant Pole Pole made front page headlines in UK and gave rise to Zoo Check, now the Born Free Foundation, which constitutes the biggest challenge to the zoo community in UK. In Article 3, *The Great Zoo Debate* Daniel Turner, Zoo Check coordinator of the Born Free Foundation and Miranda Stevenson, Director of The Federation Of UK Zoos offer different perspectives on the same issues concerning animals in UK zoos.

London Zoo put on a new image after its threatened closure in 1991. 'Living conservation' became the theme of London Zoo and as the leader of the British zoo community London Zoo claims that reintroduction of captive zoo animals is one of the main aims of UK zoos. But is reintroduction of zoo animals really successful? Is there a significant commitment on the part of the zoo community to aid reintroduction projects ? These issues are examined in article 4, *Liberation Or Death Sentence ?*

In article 5, *The Man Who Saved the Unicorn*, Dr. Mark Stanley Price, executive director of Jersey Zoo and one of the world's leading expert on reintroduction of captive animals, elaborates on the role played by zoos in releasing animals.

Jersey Zoo has long been acknowledged as a world leader among zoos and in conservation. Gerald Durrell's creation is now looked after by his wife, Lee Durrell. In article 6, *His Wife And Other Animals*, Mrs. Lee Durrell explains the

role of the Durrell Wildlife Conservation Trust in saving endangered species in captivity.

There is a new breed of zoos springing all over UK, aquariums. These watery zoos are gaining popularity and there is a proposed plan to have a Docklands Aquarium at the Silver Quays at the cost of around £40 million. The London Aquarium and Sea Life centres all over Europe are visited by many. All institutions have a common underpinning message of conservation. But are aquariums glass prisons in reality? Do thousands of fish and marine animals perish in these places? Are these institutions plundering the wild? These issues are discussed in article 7, Something Fishy Going On?

People have a lot of fun watching animals in zoos, especially children. Lions roar and monkeys swing and bears pace. But is what we see at zoos a distorted picture? Are the animals a travesty of nature? Do they behave abnormally? Does captivity restrict their lives and cause premature death? There seems to be a growing body of research suggesting that the behaviour of zoo animals is abnormal and many animals go mad due to the effects of captivity. 'Stereotypic behaviour' in zoo animals has become a major issue concerning animals in captivity. In recent years, Dr. Georgia Mason and Ros Clubb of Oxford University have published papers suggesting that large animals like elephants and polar bears suffer in captivity. Their findings have been published in the world's leading scientific journal, 'NATURE'. The zoo community however is insistent that these researches are flawed and the papers are sexed up for publicity and dramatic effect. The issue of mad animals in captivity is examined in article 8, What is that Bear Doing?

There are more zoos now in UK than ever before and the Federation Of UK Zoos claims that this is a sign of the failure of the anti-zoo lobby in Britain and everything is fine in zoos. The Federation Of UK zoos also claims that the British zoo community is progressive and is pushing for improvement regardless of the anti-zoo lobby. But perhaps the most striking example of the failure of the British zoo community comes from the Cornwall Monkey

Sanctuary in Looe, Cornwall. Specialising in primates, particularly Woolly Monkeys, this institution seems to be the only captive facility in UK that accepts that captivity for animals is insidious and destructive. This place, started by guitarist Leonard Williams, provides the most stringent criticism of animal captivity from within the captive animal community itself. Animals are held in captivity in Cornwall because they cannot be set free and not because they claim a stake in conservation. This unique zoo, is the subject of the final article, A Zoo With a Difference : The Monkey Minds Of Cornwall. This centre shows that animal conservation in captivity in zoos can be questionable at best and a con in the name of conservation at worst.

ZOOS IN THEIR LUGGAGE : THREE MAD BRITS

It is conceivable and common that people have gardens and spend time pruning their rose bushes in England. But some go further than that. They keep exotic animals and spend time chasing tigers, lions, gorillas and chimpanzees. This remarkable breed of people constitute the private ownership of zoos in UK. There are many of them in this country but the most outstanding of them are Gerald Durrell, John Aspinall and Molly Badham. These eccentric people created the zoos in Jersey, Howletts and Twycross which are widely considered to be the best zoos in Europe. These zoos stand out from the rest with their special history and give an insight into the pattern of ownership of zoos in UK. They also give a good insight into the mentality of people running zoos in England and how it affects the wellbeing of animals. This is the story of people with zoos in their luggage.

Durrell's zoo in Jersey is unique in many aspects. It was arguably the first zoo in Britain to be started solely for conservation and was much resented by the conventional zoo industry. Whereas zoos in UK and indeed all over the world were started as places of entertainment, Jersey Zoo was started with a more serious purpose. Gerald Durrell wanted a sanctuary for endangered species of animals. Zoos have traditionally been places where 'you take your children to ride on an elephant and get sick on ice cream' as Durrell himself wrote in his

book 'THE STATIONARY ARK.' Children visit zoos and take it for granted that they are nice places for recreation. His zoo attempted to change all that. It gives a good example of how one man's vision seemingly transformed the whole concept of keeping animals in captivity throughout the world.

A visit to Jersey Zoo revealed that it is indeed in some ways different from other zoos. The place does seem to have a deep commitment to conservation of wildlife. Started in 1959, at a time when the illicit trade in wild animals was at its peak in England, Jersey Zoo proved to be a revolutionary idea. David Jones, former director of London Zoo mentions : " Durrell redefined the role of zoos. It is no surprise that Jersey Zoo was the venue for first World Conference on breeding endangered species in captivity. The zoo does seem special. Gorillas gambol in their grass enclosure and orang utans swing on the branches in their island. Maned Wolves flit through the grass and Golden Lion Tamarins prance among the branches in the woodland where they live free. The surroundings do seem extremely salubrious. "Gerald Durrell was a great man. He had madly ambitious ideas, such as breeding Golden Lion Tamarins and putting them back to the wild and it was my job to put them into practice", says Jeremy Mallinson, former director of Jersey Zoo. His views are seconded by Lorna Sage, a zoology student from Bristol University studying lemurs. "People very often forget that Jersey Zoo is still very new. Zoos all over the world have been trying to man the conservation mantle, in many cases without much success. But Jersey Zoo has proved that zoos need not be stationary circuses."

So has the effort of one man really been a success? The answer is largely yes. Sifting through the records of Jersey Zoo and reading Durrell's books and talking to the keepers does seem to reveal that here Gerald Durrell's mentality was and still is unique. A man without a degree starting a whole new concept in wildlife conservation and even going to the extent of starting an academic institute at the University Of Kent in Canterbury, the Durrell Institute For Conservation And Ecology. "That is an appropriate acronym since conservation is a dicey game at best", says Margaret Barrett, administrator at

the International Training Centre at Jersey Zoo that trains wildlife workers from around the world.

Suleiman Abu Bakr, a student at the International Training Centre from Nigeria believes that Gerald Durrell was a product of his times. "There was bound to be a Durrell sooner or later. He was a renegade in the zoo world but he was a renegade who was right. But his mentality was far from being squeaky clean", says Suleiman.

Suleiman's views are backed by Douglas Botting, Durrell's official biographer who says that Durrell as a man, like most human beings had many warts. From an animal collector plundering the wilds of Africa and South America, he became a conservationist and changed the ecological scene and himself in the process, writes Botting in his biography of the stalwart naturalist. Many animal rights activists agree with Botting and say that inspite of his great contribution to conservation, Gerald Durrell could not come out of a colonial legacy and bore vestiges of racism till his death." He never went to university and was never an academic but he had the equivalent of green fingers for animals. Gerald Durrell was the sort of person who was shaped by his unique childhood in Corfu, the inspiration for his phenomenally successful book 'MY FAMILY AND OTHER ANIMALS.'" , says John Hartley, at one time Durrell's secretary and his companion in many animal collecting trips. "He was a very impossible man in many aspects but he represented the first of a generation of people who set the alarm bells ringing for the environment" adds Hartley. Durrell's record in conservation was impressive although his ideas of zoos were very far from being perfect, according to Jordi Casamitjana, independent animal welfare investigator based in Brighton. His legacy is increasingly being challenged but he was one of the pioneers of returning animals back to the wild. "Jersey Zoo has clearly helped in saving species like the Mauritius Kestrel, Rodrigues Fruit Bat and and Pink Pigeon" mentions Rob Laidlaw, director of Zoocheck Canada, an organisation campaigning for the welfare of animals in captivity. " Durrell is a good example of man with a mission, a man who wrote bestselling books under duress to fund his conservation work. An

individual of the sort who was well and truly in a separate category from the rest. A man committed to an ideology, a principle and to a movement", says John Hartley, now retired in the sunny climes of France.

If Durrell was a man with the mentality of a missionary, John Aspinall was a gambler by instinct. Born in colonial India in 1926, he went to Oxford but never graduated, attending the Royal Ascot races instead during the finals. He made a small fortune at the races and entered the casino market in the early 1960s. Whereas Durrell had been interested in animals since childhood, Aspinall's interest in animals did not start until he thirty. He started by buying his wife a capuchin monkey and his menagerie slowly grew, with the addition of Himalayan Black Bears and tiger cubs. He bought the Howletts estate in Canterbury in 1956 to house his animals and by the late 70s he also owned Port Lympne, another estate in Kent to found a second zoo.

Unlike Durrell, Aspinall's approach was more of a rich hobbyist than a conservationist. "He made and lost millions and loved to wrestle with the gorillas, play the tigers and possibly constrict with the boa constrictors. He did not have much regard for the human race but counted among his friends wealthy people like James Goldsmith", says Nicholas Gould, editor of International Zoo News, a magazine run by Aspinall. He really liked his animals and spent enormous amounts of money to lavish them with a variety of food. Having more than seventy gorillas, Howletts has the largest collection of gorillas in any zoo of the world. Aspinall's affection for his charges seems to have paid off well.

"Aspinall's approach to wild animal husbandry was and remains controversial. A number of keepers were killed in Howletts and he excelled in spouting controversial statements", says Simon Tonge, former curator of animals at London Zoo. John Aspinall disregarded the sanctity of human life calling the human race as 'redundant biomass' and saying that he would sacrifice his son rather than see an endangered species extinct. He did attempt to reintroduce gorillas to the wild in Congo, although the effort was not entirely successful.

But even zoo critics admit that John Aspinall cared for his animals, possibly more than he cared for humans. He bred many animals in captivity for the first time, including the rare and elusive Honey Badger from India. He was openly critical of circuses and had nothing but great disdain for the Zoo Federation Of UK.

"John Aspinall was a weird character, not least for his political views. An extreme right wing individual, he was a close friend of Mangosuthu Buthelezi. His name has also crept in with the disappearance of Lord Lucan. But he did appreciate people who believed that animals had as much right to exist as humans", says Richard Johnstone-Scott, former keeper of gorillas at Howletts Zoo.

Aspinall also valued artefacts and paintings and collected the works of Edmund Dulac and Arthur Rackham. He had a huge collection of wildlife books and had an almost complete collection of the novels of H. Rider Haggard. He was instrumental in preserving the mansions in both Howletts and Port Lympne and furnished them to restore their old glory. John Aspinall contributed wholeheartedly to animal rights and welfare causes and supported the Zoo Inquiry project of the World Society For The Protection Of Animals and Born Free Foundation. "His contribution to the zoo movement was immense and although he was certainly a very unconventional person, he was a maverick. His support to the Zoo Inquiry was most remarkable considering the document attacked the whole zoo concept in UK", says Jeremy Mallinson, former director of Jersey Zoo.

Aspinall loved gorillas and Molly Badham loves chimpanzees. A pet shop dealer in the fifties, she started Twycross Zoo in 1963. Molly Badham was forced to open a zoo in many respects, unlike Durrell or Aspinall who did so more out of will rather than necessity.

Rescuing primates, especially chimpanzees had become her obsession when she was in the pet trade with her partner, Nathalie Evans. She also received

many other animals of different species, from birds to reptiles. However, she soon realised that the growing number of animals could not be housed at her property in the village of Hints near Staffordshire. She ended up buying the present land in Twycross and started her zoo.

Molly Badham was experienced in caring for primates from the time she ran her pet shop. At a time when monkeys did not survive in captivity, she honed her skills in looking after them so that they could be satisfactorily maintained in captivity. " I must say that Molly was quite a crazy woman. She always wanted to do things her way. Whilst this was all right most of the time, she could also be extremely pushy on occasions", said Malcolm Whitehead, former Education Officer at Twycross Zoo.

Molly Badham along with Nathalie Evans are remarkable in the zoo industry of Britain since they are women in a world dominated almost exclusively by men. People who have interacted with them find it strange but fascinating. " I was quite surprised that two women could start such a large enterprise. They are definitely weird people but they are very warm and helpful. Their expertise is amazing and it is astonishing that they have become conservationists after being involved in the exploitative trade in animals" , says Rajashree Sharma, Wildlife Education Officer Of The Assam Forest Department who visited Twycross Zoo as part of an educational tour a couple of years ago.

Twycross Zoo now has one of the finest collections of primates in the whole world. The zoo is one of the very few to house Bonobos, or Pygmy Chimpanzees. It has all the four species of great apes, Gorillas, Chimpanzees, Orang Utans and Bonobos. Besides, it has representatives of the forgotten apes, gibbons. Many species of animals have bred here, some into the second or third generation. The collection has also diversified with lions and tigers roaring among the gardens. Giraffes and tapirs enchant many a visitor. However, the role of Twycross Zoo in reintroducing animals seems negligible, indeed non existent. There is no information on what animals have gone back to the wilds from Molly Badham's territory.

The story of Gerald Durrell, John Aspinall and Molly Badham illustrates the pattern of ownership of what are considered to be the finest zoos in Great Britain. Coming from different backgrounds they all began collections of animals that eventually turned out into full fledged zoos. 'The zoo community applauds their contribution to conservation.' One cannot overestimate the contribution these three individuals have made to conservation. Gerry is known all over the world and was an international celebrity. Many know Aspinall. Molly is perhaps not that famous but certainly an important figure in the zoo world ", says Richard Johnstone Scott, Head Of Mammals at Jersey Zoo. The three individuals do have critics and the critics have common criticisms. "By sanctifying the concept of zoos, Durrell and Aspinall contributed a lot to the misguided notion that there is nothing fundamentally wrong with keeping animals in captivity. Had Jersey and Howletts zoos never existed, many more people would have realised the cruelty of zoos and the campaign to abolish captive animal institutions would have gained ground" says Jordi Casamitjana, a freelance animal welfare investigator. David Hancocks, director of Werribee Zoo in Victoria, Australia also says that the much touted animal exhibits in Jersey and Howletts zoos are quite unexciting. "The fact remains that all these individuals were involved in the cruel animal trade in endangered species and have contributed to the causes of their decline at some point of their lives" , says Diane Westwood, chief coordinator for the Captive Animals Protection Society. All of them have courted the media and have written books. Durrell wrote thirty seven books in his lifetime, several of them bestsellers. MY FAMILY AND OTHER ANIMALS is widely regarded as a modern classic. He however insisted that unlike his novelist brother Lawrence, he wrote for profit. "Larry writes for posterity, I write for cash" , he often mentioned. And it was the need for cash which spurred John Aspinall to write his autobiography entitled THE BEST OF FRIENDS. Molly Badham's MOLLY'S ZOO also has a hint of self promotion and congratulation.

Gerald Durrell and John Aspinall were born within a year of each other, Durrell in 1925 and Aspinall in 1926. Both have exhibited notorious tendencies for racism and a propensity to consider animal life as more important than

humans. Examples of such predilections are peppered throughout Durrell's books and Aspinall's writings. Even Molly Badham assumes a patronising tone for foreigners in her book.

All of them were considered interlopers by the conventional zoo community since they ran their institutions their own way and defied conventional theories on animal amangement.

"It could well be that these people were as much caged as the animals they incarcerated. Creating a zoo was probably an outlet for a need to keep everything under control. I suspect that by keeping animals in captivity they exhibited signs of neurosis since gardening is essentially an abnormal activity" says Jordi Casamitjana. Elaborating on his comment he added that gardening involves restricting the growth of plants to suit the whims of the gardener. "Creating zoos historically has followed the gardening tradition" mentions Casamitjana.

Whatever the motive behind their creations, the zoos of Jersey, Howletts and Twycross still exist. Durrell and Aspinall are gone and Molly Badham is now an elderly lady. What is undeniable that all of them have made a valiant attempt to change and shift fundamental human attitudes towards other species. Gerald Durrell has been recognised widely as one of the founding prophets of the modern day environmental movement along with Jacques Cousteau and Rachel Carson. The images of John Aspinall kissing and hugging gorillas and tigers on the television screen have stunned many who thought such a relation hitherto impossible. Durrell's trust has now been taken over by his widow Lee and Damian Aspinall is trying to fill in his father's shoes. No doubt, the fame and reputation of Jersey and Howletts zoos have been largely been built on the glamour of their founders who are now gone. Conversations with keepers in both these places revealed that the institutions no longer have the focus and vision installed by the larger than life personalities. There is still the debate on whether it is desirable to have zoos and perpetuate the notion of having animals in captivity in a modern civilised society. But for these eccentric

individuals their impact has certainly gone beyond their zoo bars.

ARK OR SHOWBOAT?

The idea of a modern day ark releasing animals appeals to many and zoos have seemingly become the modern arks. 'Living conservation' as advertised by London Zoo as the band leader of the zoo community in Britain claims that animals from zoos regularly go back to the wild. Indeed, all zoo literature is awash with statements like 'zoos are helping to reintroduce wild species threatened with extinction.' However, potential arks can also become showboats that might only exhibit their passengers. The whole conservation movement is now examining the practicability of claims of the release of zoo animals.

David Hancocks, director of Werribee Zoo and Australia and former director of the Arizona Sonora Desert Museum is a self acknowledged nuisance in the zoo community. Mr. Hancocks challenges the stated role of zoos in reintroduction. " There is a commonly held misconception that zoos are not only saving wild animals from extinction but also reintroducing them to their wild habitats. The confusion stems from many sources, all of them zoo-based. In reality, most zoos have had no contact of any kind with any reintroduction program."

"Reintroduction can be defined as the release of captive-bred or wild caught animals into areas they no longer inhabit or in which their numbers have been seriously depleted within their historical range", says Rob Laidlaw, director of Zoocheck Canada, an organisation campaigning for the welfare of zoo animals. Laidlaw says that the inherent difficulties of the reintroduction process preclude it as a tool in any conservation project. "Captive propagation and reintroduction can be valid only within a very narrow set of parameters", he adds.

A visit to London Zoo does raise interesting questions. The zoo has many species of endangered animals on show and there are signboards and leaflets

speaking about reintroduction of animals. However, there does not seem to be any substantial material publicly available which speaks about the specific animals or cases of reintroduction involving London Zoo apart from British Field Crickets and Partula Snails. " London Zoo's conservation record is appalling. In fact, some members of the council had to persuade the zoo to devote more of its activities to conservation till 1991 when a financial crunch forced the zoo to don its new conservation mantle although even now, London Zoo's involvement in reintroduction projects is minimal" , says Jordi Casamitjana, an independent animal welfare investigator based in Brighton. One of the most famous reintroduction programmes involving zoo animals is the Arabian Oryx programme. This project in 1964 was started after Arabian Oryxes were being hunted in the wild and a captive herd was started in Phoenix Zoo, Arizona. London Zoo donated an animal to the project and eventually the captive population of the oryx grew. At this stage, it became possible for some animals to be returned to the wild. Animals bred in zoos in USA were sent back to Jordan, Israel, Oman, Saudi Arabia and United Arab Emirates. In 1982, ten Arabian Oryxes from Phoenix Zoo were released to the wild in the Jiddat al-Harasis in Oman.

The Arabian Oryx programme involved and benefited the local people. The Harasis people who inhabit the region in which the oryx were released serve as oryx protectors and received money for doing so. The project was considered by many conservationists to be one of the most successful reintroductions to date. However, problems persisted which raised the validity of the scheme. " The whole project cost almost a million pounds and although some good results were achieved, I would still question the validity of putting in such enormous amounts of money in captive breeding projects to protect a single species. It would be far better to put that amount of money to protect natural tracts of habitat such as the Korup Forest in Cameroon", says Sir Christopher Lever, acclaimed author of *Naturalized Mammals Of the World*.

The Arabian Oryx project is still not out of the woods yet. There has been poaching in recent years leading to many released animals being taken back into captivity. " The very fact that reintroduced

animals have been taken into captivity again raises serious questions not only about this project but also about the validity of all captive breeding projects ", says David Spratt, ex-London Zoo employee and now a scientific consultant to CAPS(Captive Animals Protection Society). He finds company with Jordi Casamitjana who says that all reintroduction projects are essentially flawed because the safety of a habitat can never be asserted in the long run with any degree of certainty.

According to the World Zoo Conservation Strategy published by the Chicago Zoological Society only 15(11%) of 138 recorded reintroduction projects are successful. " Successful means these projects have effectively contributed to the re-establishment of a self sustaining wild population. Many ongoing projects are considered promising and many projects have yielded other benefits such as increased public awareness and support for conservation, professional training, enhanced habitat protection and increased scientific knowledge" , says Roger Wheater, former director of Edinburgh Zoo. Wheater quotes the example of the reintroduction of the Scimitar Horned Oryx in Tunisia and says that it is only one project among many involving zoos.

Even if zoo bred animals make it to the wild, there are dangers . Dr. Devra Kleiman of the Smithsonian run National Zoo in Washington says that "attempts to introduce a species, if poorly conceived or implemented may detract from, rather than add to, a species' chances of survival." The Born Free Foundation based in Sussex highlights several problems that might be associated with reintroduction efforts. Says Daniel Turner, "If an animal is not prepared for release then it is almost certain to have difficulties in surviving." Rob Laidlaw of WSPA (World Society For The Protection Of Animals) elaborates: "Failure to achieve the desired level of preparedness for release candidates has hindered the progress of many reintroduction efforts. Examples include captive-raised chimpanzees lacking the necessary social abilities required for integration into wild groups; red wolves lacking the necessary response to danger ; captive-bred black footed ferrets lacking the ability to hunt for themselves and thick billed parrots failing to recognize predators."

One of the most lethal problems involved in reintroducing animals is the introduction of a previously unknown disease. Says wildlife veterinarian Michael Woodford, "Zoo animals are often exposed to pathogens brought in from foreign countries and to infections transmitted by attendants and visitors." Laidlaw and former Jersey Zoo keeper Stefan Ormrod bring in an example of a potential disaster in releasing animals. In 1991, National Zoological Park was making preparations to ship eleven Golden Lion Tamarins, an endangered species of Brazilian monkey, to the wild in Brazil. "Three days before

departure, blood tests indicated that one monkey carried a lethal virus that could have wreaked havoc with the wild Golden Lion Tamarin population." Says zoo biologist Benjamin Beck of National Zoo, "It is a very serious potential problem. It is only because of our advanced facilities that we were able to catch this virus. Who knows what else is going through?" British zoos like Jersey had contributed animals for this project and their animals might also have had some disease, says Jordi Casamitjana.

Dr. Lee Durrell, director of the Jersey Zoo based Durrell Wildlife Conservation Trust says that it would be unwise to throw the baby out with the bathwater. "Reintroduction is still an emerging science. The dangers do exist. But that is not to say that the efforts are invalid. Indeed some reintroduction efforts may spell the difference between survival and extinction for an endangered species.", says Durrell. Jeremy Mallinson OBE, former director of the same zoo says, "Reintroduction is a multidisciplinary tool. One has to take into account several factors that might affect the survival of a species. Failures are part of the process of learning. There is no reason for us to hang up our efforts and raise our hands in the air." Colin Tudge, science writer and former council member of the Zoological Society Of London says that whilst it is true that the reintroduced Golden Lion Tamarins did not do well, it is not a sign that captive breeding and reintroduction efforts are doomed. "Critics of captive breeding will reflexively oppose any reintroduction effort. The Golden lion Tamarin project only shows that they can be extremely difficult." says Tudge.

But even seemingly successful projects have ended in disaster. The release of a Black Lion Tamarin to the wild in 1999 was hailed by Jersey Zoo curator as "a fine example of the cooperation, coordination and communication that has to accompany any successful reintroduction programme. In this case, local people got benefits from protecting habitat and in turn conserving the Black Lion Tamarin." But the single released animal did not named Marco did not survive long. He got killed by an ocelot, a wild species of cat. "It is quite probable that he did not have the requisite skills necessary for survival. Reintroduction projects are very often public relations rather than scientific exercises."

Posters and literature in zoos in London, Jersey, Twycross and Howletts emphasise that the Golden Lion Tamarin do proclaim the Golden Lion Tamarin project as a classic case of success for captive breeding. David Spratt of CAPS has a different view. "Most released animals soon died. The existing animals were able to survive, not because of captive breeding but because of habitat protection. " Scientist Robert Loftin, writing in the book 'ETHICS ON THE ARK' states that it is unclear if the captive breeding programme of Golden Lion Tamarins was necessary in the first place. Robert Laidlaw

says " I do not know if the reintroduction programme was really needed. Many scientists have indeed said that it was not really necessary and that it would have been better to put in more resources for the protection of the Amazonian rainforest. Zoos have made a contribution to conservation in this case, but in my opinion, they have grossly overstated their case."

The Golden Lion Tamarin is a famous case. But there are many other cases and zoos in many cases are not the primary proponents, animal providers, funders or managers of reintroduction programmes.

"The role of British zoos in reintroduction efforts remain questionable since most reintroduction programmes were initiated by wildlife agencies or stalwart individuals like Sir Peter Scott and not by zoos", says David Hancocks of Werribee Zoo. David Spratt of CAPS says that zoos are emphasising on reintroduction to allay public criticism of their efforts.

In Howletts Zoo in Canterbury, there are groups of gorillas gambolling in spacious cages. The zoo claims to breed these animals for eventual reintroduction. Indeed Howletts Zoo has been praised for the conditions in which the gorillas are kept by many experts, including Dian Fossey, acclaimed gorilla expert and the central figure in the film 'GORILLAS IN THE MIST.' But questions remain on how many of the seventy gorillas in Howletts will eventually set foot on African soil." If you ask an average zoo visitor, he is very likely to tell you that gorillas from Howletts are regularly going back to the wild. But, in reality, there have been only a few genuine efforts and they have failed", says Casamitjana. Howletts Zoo director Robert Boutwood says that the zoo has not only provided animals bred in England for release but has also supported the rehabilitation of orphaned baby gorillas in the Congo. "Apart from directly providing animals for reintroduction we financially, logistically and technically support the reintroduction of Pygmy Chimpanzees in Zaire, Ocelots in Mexico, Przewalski's Horses in Mongolia and Burmese Pythons in Indonesia. It would be extremely churlish to claim that this zoo is not doing anything for the reintroduction of animals. If anything, it is doing much more than the vast majority of zoos in UK", says Boutwood. "Howletts might be reintroducing animals in the wild but have they properly considered why they are doing it ? The biggest threats to gorillas are hunting for bushmeat and habitat destruction and as long as these continue, it will make no sense to breed hundreds of gorillas in the salubrious surroundings of Canterbury. These animals are not for reintroduction ", Casamitjana elucidates. "Many animals in Jersey Zoo will never see the light of day and therefore reintroduction is not a primary factor in incarcerating them" says John Fa, director of conservation at Jersey Zoo. John Aspinall, the founder of Howletts and Gerald Durrell of Jersey Zoo both publicised the reintroduction efforts of their respective zoos and many in the zoo community in

Britain and abroad concede that both these institutions have done more than any other in Britain to accomplish the goal of reintroduction of captive animals.

Rehabilitating captive animals can be fraught with endless difficulties as happened with the Woolly Monkeys of Cornwall Monkey Sanctuary. A rehabilitation programme in Brazil had to be abandoned due to the discovery of the Woolly Monkey Hepatitis virus in 1999. Apart from the virus, the captive animals suffered from an imbalanced sex ratio, with far more males than females. Says Brian Milton, Trustee of the Woolly Monkey Sanctuary Trust, "As an organisation that has housed these creatures for 37 years, the Sanctuary is well placed to show how even the best intentions for reintroduction can be flawed. Long term captive breeding can cause unforeseen problems, viruses can linger for years undetected, the lack of space, the boredom caused by living in a safe and artificial environment, all these cause stress and health problems and are bound to negatively affect any reintroduction programme." "Over a generation, captive animals can get adapted to captivity. This is known as speciation and makes them unfit for release to the wild" says David Spratt. Brian Milton says that as a responsible facility, rather than conceal these problems, the Woolly Monkey Sanctuary emphasises on the negative aspects of captivity in the message given out to visitors. Milton adds that the best captive conditions can cause suffering for animals and stifle their potential.

The Spix's Macaw in Brazil is another example of an endangered species that was reintroduced to the wild but did not survive. The wild population of the bird fell to just one individual in 1995. A last ditch effort to save the species in the wild by reintroducing a female failed. There was enormous wrangling and politics between zoos and private owners on the future of this species. The sorry story is outlined by Tony Juniper in his book 'SPIX'S MACAW'.

Cost comparisons between conservation in the wild and captive breeding and reintroduction reveal interesting statistics. The Zoo Inquiry published the World Society For The Protection Of Animals and the Born Free Foundation states that the cost per survivor of the Golden lion Tamarin programme was approximately \$161,000. The whole Golden Lion Tamarin project cost an estimated \$ 7.5 million. For the Black Footed Ferret in USA, the cost per survivor, is estimated to be \$400,000. Also, to maintain one Black Rhino in captivity annually costs around \$ 16,800. The Zoo Inquiry states that the annual cost for protecting an appropriate wild place is \$1000 and that it can cost more than hundred times to maintain a group of elephants in captivity for a year than to conserve a similar group in the wild.

Lee Durrell of Jersey Zoo states that the conservation contribution of zoos will improve in the future since reintroduction is a new and evolving science. Rob Laidlaw of Zoocheck Canada admits this argument but goes on to say that the effectiveness of this role will be greatly diminished if the current level of misspent energy and resources, that ultimately does nothing to save wildlife and wild places continues. "Compared to the resources they command, the world wide zoo community has not made a substantial contribution to wildlife conservation through captive propagation and reintroduction" , says Laidlaw.

Although the debate on the effectiveness of reintroduction of zoo animals continues, it seems clear there are existing problems in current release programs. "Let us face it", says Jordi Casamitjana " Reintroduction programs are an effort to better nature, to recreate all that has been lost. It is pie in the sky to say that we can one up nature because we can't." , he adds. Until we can, maybe many zoo animals will continue to languish in cages with no hope of release. Not at least in the foreseeable future.

A LEGACY OF IMPERIALISM

Imperialism existing in modern times is accepted as a bit of a conundrum since it is considered to be a thing of the past. The discovery and domination of new countries and exploitation of their resources was an integral part of colonialism. But whereas in many ways imperialism has collapsed in the modern world, there are institutions that serve to remind us of the past. Seemingly innocuous places of entertainment and edification might be among them. Are zoos among them ?

Menageries of wild animals have been recorded as far back as the times of Pharaohs. But the modern zoo concept began only in the late eighteenth and early nineteenth century when a number of European cities developed zoos. One of the first zoos to be started in Europe was the animal collection in Schonbrunn in Austria in 1781. Other menageries soon followed in cities like Paris, Dublin and London. The Zoological Society Of London, recognised widely as the first 'modern' zoo was founded in 1826 by Sir Stamford Raffles in 1826 'for the advancement of zoology and animal physiology and the introduction of new and curious subjects of the Animal kingdom.' Historian Eric

Baratay says that "In the 1800s, the urbanisation of Europe and America, along with colonial expansion throughout Asia and Africa, encouraged the growth of zoos, with animals being imported in their thousands." Today, zoos have donned a new mantle, that of 'conservation centres' as exemplified by London Zoo's motto of living conservation. The role of the zoo industry seems sanitised. But as Baratay says, the effect of creating zoos and the scope of the resulting decimation, of both species and their natural habitats is only becoming apparent.

"Although the zoo industry has tried to convince the public quite successfully that it has shed its imperial past, many things remain the same", says Rob Laidlaw, director of Zoocheck Canada and projects manager of WSPA (World Society For The Protection Of Animals). A visit to London Zoo revealed many remnants of imperialism. Architecture is but one of them.

"Zoos, especially city zoos give us an idea of human-animal relationships over the past four hundred years and London Zoo is a good example of the human tendency to dominate all creatures. It is a monument of human power over nature. Most enclosures and buildings in London Zoo are a relic of imperialism", says Jordi Casamitjana, an independent animal welfare investigator based in Brighton.

Authors Bob Mullan and Gary Marvin, elaborating on the subject of zoos as imperialistic institutions say " Human societies in different historical periods have created major social institutions in which living creatures are forcibly contained and controlled. In zoos, human beings enforce the containment and display of animals in ways which express attitudes of superiority toward the natural world." They are supported in their view by Professor David Ehrenfeld in the book 'ETHICS ON THE ARK' who says " In many ways, the zoo has come to typify the themes of the Age of Control: exploration, domination, machismo, exhibitionism, assertion of superiority and manipulation."

Although imperialism has collapsed, zoos still exist. The whole zoo concept is

being questioned, sometimes by zoo directors themselves." The zoo concept is basically a nineteenth century concept" says David Hancocks, director of Werribee Zoo, and former director of Woodland Park Zoo in Seattle.

Fascination for the new and novel was an essential part of imperialism. So much so that human beings were exhibited. Writes Eric Baratay and Elisabeth Hardouin –Fugier in 'ZOO A HISTORY OF ZOOLOGICAL GARDENS IN THE WEST', " In USA, zoos that did not admit black people were rare, but chimpanzees were often referred to as 'Uncle Remus'". They say that William Hornaday, founder of the Bronx Zoo in New York, used his zoo to underline the superiority of the white race. In 1904, in one of the most astonishing displays ever in human history, Hornaday exhibited African Pygmies in primate cages. This experiment was halted following complaints but reports exist that Carl Hagenbeck, the German animal dealer attempted to do the same thing in his travelling circuses and zoo in Hamburg.

These prejudices are not a thing of the past and exist today, according to Jordi Casamitjana. " At the time of Hornaday, it was considered all right not to treat black people with respect, so it was OK to exhibit them in cages. It is however still OK to exhibit animals in cages, and that is a sign of no respect. Whereas imperialism was linked to nations, zoos are linked to the human empire and reinforce the theme of human imperialism", says Casamitjana.

Former curator of London Zoo, Simon Tonge, says that while it is true that London Zoo does show imperialistic architecture limitations exist because some of the buildings are listed and cannot be broken down. Oliver Graham-Jones, a distinguished veterinarian and London Zoo's first full time vet also regrets archaic architecture and antiquated animal management policies.

There are dissenting voices regarding the nature of zoos however. Vladislav Kozyryev, a keeper of Nikolaev Zoo, and a trainee at Jersey Zoo, says, " It is not correct to say that zoos still bear the legacy of imperialism. The Nikolaev Zoo has attempted to change its old architecture and in Jersey Zoo, there is no symbol of imperialism everywhere. As far as exhibiting animals

goes, it is anthropomorphic to say that they are slaves and are objects of curiosity since animals in zoos are for conservation purposes." But comparisons with defunct institutions of yesteryear remain. "Just as London Zoo swarms with children who get a particular thrill from seeing things they've never seen before, so everything in the Tower Menagerie was new to its visitors", writes Daniel Hahn, in his recently published book 'THE TOWER MENAGERIE'. The Tower Menagerie is the least familiar strand of the imperial history of the Tower, according to Hahn and London Zoo is a direct descendant of that institution.

Zoos, according to Jordi Casamitjana have only changed who they keep, why they keep and how they keep, but the basic tendency to keep something as a status symbol or curiosity object still persists.

Modern forms of zoological gardens were invented in Europe and the idea was also caught up by colonised countries. In India, zoos started springing up in the nineteenth century during the days of the Raj. The basic European institution started to spread its tentacles all over the world. Although the European empire is extinct present day zoos are alive and kicking and provide deep insights into human psychology. A visit to a zoo can help understand human society, according to Eric Baratay. " Every aspect of humanity's relationship with nature can be perceived through the bars of the zoological garden: repulsion and fascination, the impulsion to appropriate, master and understand, the progressive recognition of the complexity and specificity of the diverse forms of life." He goes on to say that the story of zoos is linked to vast parallel histories of colonization, ethnocentrism and the discovery of the Other, violence in human relationships and the moderating effect of the civilising process on morals and behaviour. "Zoos show the creation of places of collective memory, the complication of social practices and the development of leisure activities", Baratay adds.

The development of zoos has been positive to shed the legacy of imperialism, according to Dr. Miranda Stevenson, director of the Federation Of UK Zoos.

"The role of zoos has continued to change over time: from the private menageries of state rulers, to exhibitors of exotic species to a curious public and the more scientific living museums first developed in Victorian times. Zoos' ability to change has resulted in them embracing much-needed conservation initiatives", says Stevenson. According to Jeremy Mallinson, former director of Jersey Zoo, the imperial baggage has been dumped. "In 1992, the World Zoo Conservation Strategy, encompassing the role of all zoos was published by the Zoological Society Of Chicago. The publication clearly outlines that modern zoos are evolving towards becoming environmental resource centers and have come a long way off the imperial menageries of the nineteenth century" says Mallinson. But modern day conservation as practiced by zoos is also being questioned. The Zoo Inquiry published by the Born Free Foundation and the World Society For The Protection Of animals says that Black Rhinos have been translocated from Zimbabwe to zoos in Australia and USA for ostensible conservation purposes. "The whole project smacks of an enormous attitude of colonialism and imperialism since by taking these animals out of their native country you are in effect telling the Zimbabweans that they do not have the requisite expertise for conservation", says John Fa, director of Overseas Conservation Programmes at Jersey Zoo. Rob Laidlaw of WSPA agrees with John Fa. " I am always amazed at the arrogance which goes behind such presumptuous projects. When you consider the fact that most of the animals died soon after arrival in USA and Australia, you are forced to conclude that zoos are still a vestige of the imperial concept.", says Laidlaw.

Randy Malamud, in his book 'READING ZOOS' says that zoos represent an analogy of a 'culture' that keeps captive animals well, by implication, can keep the charges of the empire well. "That is precisely the motivating factor behind many so called conservation activities of zoos today which do not take into account local needs and sensitivities. Zoos of the western world automatically assume that they are able to do the best for animals in Asia and Africa by keeping them in Europe and Africa whereas there is no suggestion that they have successfully done so" says Rob Laidlaw. London Zoo, although still very much a menagerie, in terms of housing and animal husbandry inflates

itself as a very fine progressive institution, according to Malamud. Malamud also states that "history confirms London Zoo's manifestly imperial roots: its founder, Sir Stamford Raffles, was one of nineteenth century England's most notoriously successful imperial traders. No one better embodies the link between imperialism and the collection, imprisonment and display of animals."

In an effort to change the imperialistic nature of zoos some institutions have changed the name 'zoo' to 'wildlife conservation park'. Bronx Zoo in New York is an example and zoos in Britain increasingly focus on conservation messages. But term changes can possibly only be cosmetic as history cannot be rewritten. Malamud and Casamitjana say that such spin-doctoring cannot change the nature of zoos since they remain places of vulgar curiosity.

The imperialistic concept of zoos has also been dealt by a number of philosophers. Professor David De Grazia and Tom Regan have both commented that even modern that have ostensibly cast off their imperial past do as much harm to the captive animals as their predecessors.

Randy Malamud alleges that imperialism has been replaced with crass commercialism in zoos and equates that with cultural imperialism. Such charges are denied by the zoo community. "Marketing is an essential factor in running zoos. If properly done, much valuable funds can be raised for conservation in zoos. We leave no stone unturned in our efforts to get more money, which, in turn, is plowed back into conservation. What is imperialistic about that?" asks Paula Harris, marketing manager of Jersey Zoo. But Malamud disagrees. "In the same way that nineteenth century London Zoo was designed to make visitors proud of vicarious engagement in their culture's imperial prowess, today's zoos are marketed to flatter spectators' roles as active members of a gloriously affluent consumeristic society", he says.

In England and in Continental Europe, most city zoos were founded during the heyday of the empire. Eric Baratay gives examples of zoos in Berlin, Hamburg, Rotterdam, Frankfurt, Paris, London and Antwerp. All these zoos still have architecture only of historical value and unsuitable for animals. Grandiose domes and temples and Mughal and Oriental architecture found their way into these zoos. Critics like Laidlaw insist that these architectural features which still

exist today bear testimony to the fact that they were intended more for human sensibilities than animal welfare, a classic trend to immortalise the trophies of the empire. In London, although Sir Hugh Casson's elephant house is deemed unsuitable for keeping elephants, the building cannot be demolished since it is a listed building. London Zoo acknowledges that and has sent away its elephants to its countryside estate in Whipsnade in Bedfordshire but the building still remains. "Many zoos are stuck up in the past. Like rusty old cars, they are chugging slower and slower and can't move forward", says Mark Bristow of BBC WILDLIFE magazine. "It is time to put an end to this strange and failed experiment", says Daniel Turner, Zoo Check coordinator of the Born Free Foundation. Salim Hamid, a wildlife rehabilitator in Bangalore, India stresses that zoos remain imperial institutions exploiting animals for profit. "They are a money making business and London Zoo uses conservation to sell more tickets. Nothing has changed since the Victorian days when London Zoo would employ Indian keepers

Zoo officials like Miranda Stevenson and Simon Tonge insist that far from being stuck up in the past, modern zoos in UK are surging ahead. "It would be wrong to judge city zoos as legacies of imperialism solely on the basis of architecture since there is so much progress in the concept", says Stevenson. But the critics are unconvinced. "Although a building is unsuitable for animals, it cannot be demolished since it is listed. Not now, not ever in the history of human kind. Is there any more potent example to show that zoos are still clinging on to their imperial past?" asks Casamitjana.

WHAT IS THAT BEAR DOING ?

One of the more unusual signs at London Zoo is in front of the bear enclosure. It says 'What is that bear doing ?' and goes on state that a particular bear in London Zoo has the habit of swaying. It also states that this kind of behaviour is thought of as abnormal and a sign of the cruelty of captivity but it is not London Zoo's fault that the animal is behaving that way since it had imbibed this behaviour before coming to London. But so what if the bear is swaying?

The behaviour of animals can cause the public much amusement but recent research shows that many animals in zoos show signs of abnormal behaviour and suffer in captivity. So whereas a bear might be pacing along the length of an enclosure and people think it is active and sprightly, it might actually be going around the bend, according to Bill Jordan of Care For The Wild based in Sussex. "For a long time, people did not know or care that animals in captivity suffer and show signs of stress but they increasingly do", says Jordi Casamitjana, an independent animal welfare investigator based in Brighton. Casamitjana provides the examples of Polar Bears in captivity which go neurotic. His views are echoed by Daniel Turner of the Born Free Foundation who says that Polar Bears behave abnormally in many zoos around the world. "The Polar Bear campaign of the Born Free Foundation in the early 1980s was the first time that an animal welfare campaign was based on abnormal behaviour of a species in captivity", explains Turner.

But why do animals behave abnormally in captivity? Rob Laidlaw of Zoocheck Canada says that animals have complex needs and captivity cannot fulfil these needs in many cases and thus captive animals go neurotic. He is supported in his view by Jordi Casamitjana who says that no captive situation can ever be a substitute for the wild and indeed the very word 'enclosure' is restrictive. But the zoo community differs on the issue.

Miranda Stevenson of the Federation Of UK Zoos says that the interpretation that animals behave abnormally in captivity is too simplistic. She also says that captivity is bound to change the behaviour of animals but that change need not necessarily be negative. "Animal welfare organisations are too keen to portray all zoos as prisons causing suffering to animals but that is not necessarily the case. An animal might adapt to captivity and develop a new behaviour to substitute for its behaviour in the wild but increasingly, zoos are enriching their environments so that animals behave as closely as possible as they would in the wild" says Stevenson. She adds that environmental enrichment programmes are constantly evolving and are aimed toward the benefit of the animals.

Nature does not need enrichment says Jon Coe, a zoo architect based in the U who has been involved in designing and redesigning a number of zoos. According to Coe, naturalistic habitats are best for animals. But are they? Rob Laidlaw says that the new enclosures for polar bears are worse than the old cages because they are even more artificial. The animals are very obviously restricted by their surroundings and go out of their minds according to Laidlaw.

Abnormal behaviour is closely associated with stereotypic behaviour, according to many experts. Jordi Casamitjana says that 'stereotypic behaviour' is a form of behaviour that has no apparent function and is detrimental for the animal's health and well being. But the Federation Of UK Zoos disagrees. 'Stereotypic behaviour is not necessarily abnormal since they can be helpful in alleviating the boredom of captive animals" says Colin Tudge, former council member of London Zoo and author of the book 'LAST ANIMALS AT THE ZOO'. According to Tudge the media has demonised zoos by giving headlines such as 'Mad Bears'.

There are many kinds of stereotypic behaviour seen in zoo animals, according to publications of the Born Free Foundation. One of the most common forms is pacing, whereby an animal, particularly a big cat or a bear, will constantly pace to and fro. "Other forms of stereotypic behaviour include bar biting, whereby an animal constantly bites or licks the bars of its cage. Animals also twist their heads and eat their own faeces in captivity", says Daniel Turner. Indeed, sometime ago, the Born Free Foundation assisted the BBC to get footage of a gorilla in London Zoo ingesting its own faeces. The footage was condemned by London Zoo director Chris West as 'distasteful since gorillas behave similarly in the wild as well." Coprophagy, as the technical term of ingestion of faeces is known, is quite common in captive animals according to the Born Free Foundation.

Dr. Roger Mugford, an animal psychologist, and consultant to the Born Free Foundation says that if an animal exhibits a form of behaviour that is self damaging and is functionless, it can correctly be described as 'mad'. This view

is contested by the UK Zoo Federation. Says Miranda Stevenson, "Stereotypic behaviour occurs in the wild as well and terms such as mad are just too human to feed a hungry press eager for sensation", she explains.

Do people realise that the animals they are seeing in zoos are abnormal ?

Says, Jessica Trenholm, 16, a school student from Bath, " I guess when an animal sways it is happy and is dancing for my benefit." Says Cathy Kinsman, a professor from New York, "I understand that the constant swaying movements of polar bears is abnormal." Rob Laidlaw of Zoocheck Canada says that although stereotypic behaviour does occur in the wild, it occurs very rarely, but it occurs in captivity all the time.

"Critics of zoos do not understand enough of science to comment on what behaviour of animals is normal and what is abnormal" says a zoo employee of London Zoo who insists on not being named. But Rob Laidlaw says "Even scientists do not know enough about what is going on in the mind of a human, let alone an animal."

Visits to London Zoo revealed many animals, especially the big cats pacing and showing signs of what animal welfare activists term as abnormal behaviour. Dr. Georgia Mason of Oxford University, an acknowledged expert in animal behaviour says that elephants do show signs of stereotypic behaviour in captivity. In a report endorsed by RSPCA she clearly mentions that elephants suffer in captivity and their behavioural needs are not satisfied in UK zoos. The zoo community of UK challenges this and claims that the RSPCA study was flawed.

Dr. Mason says that captivity constraints the natural behaviour of animals, especially carnivores like Polar Bears and other wide ranging species and cause infant mortality. In a paper published in the scientific journal 'NATURE' last year, Dr. Mason suggested that zoos should phase out carnivores. "A Polar Bear's enclosure in captivity is likely to be one millionth of its home range size", wrote Mason. But the Federation Of UK Zoos disagrees. "The Polar Bear

statement was emotive. The paper was rejected twice and was sexed up for effect", says Miranda Stevenson.

Jordi Casamitjana says that over a period of time, people have come to realise the existence of abnormal behaviour among zoo animals. Even fish show signs of distinctive abnormal behaviour, he says. "Abnormal behaviour is always due to the inadequacy of the captive environment. The zoo community did not acknowledge abnormal behaviour in animals twenty years ago. Now they seem to do for some species like Polar Bears. Let us see how long it takes them to acknowledge that most species behave abnormally in zoos" he adds. "If people get to know that animals behave abnormally in captivity and they are able to spot abnormal behaviour patterns in animals in zoos, they might want to stop visiting them" says Will Travers, Chief Executive Officer of the Born Free Foundation. It remains to be seen if the existence of the alleged abnormal behaviour in captive animals ultimately leads to the closure of zoos.

AQUARIUMS : GLASS PRISONS OR WONDERLANDS?

The very word zoo conjures visions of children looking at monkeys or staring at tigers and lions. But a new breed of 'zoo' is coming up all over the world and especially in Britain. These are the watery zoos or aquariums.

Aquariums in Britain are officially not part of the zoo community but their numbers are rising. One of the most visible aquarium concerns in Britain is the Sea Life Centre. There are eighteen Sea Life centres all over Europe and six in England. The Sea Life centre in Brighton is one of the most popular.

The centre claims that they have championed the cause of marine conservation since 2001. Sea Life Centre Brighton says that they have a unique scheme named SOS, an acronym for save our seas. According to posters in Sea Life Centre in Brighton and website information, the SOS scheme collaborates with wildlife charities like Greenpeace, World Wide Fund For Nature and Whale And Conservation Society. Superficially Sea Life's message is in line with the present global environmental

conservation message. But the conservation role of Sea World is not accepted by all.

Jordi Casamitjana, an independent animal welfare investigator based in Brighton says that the current trend of starting aquariums in UK is counterproductive to conservation. Casamitjana is of the opinion that aquariums are just watery zoos and glass prisons.

The Sea Life Centre exhibits a number of marine animals including Giant Japanese Spider Crabs and Sea Horses. There is also a Giant pacific Green Turtle named Lulu. Sea Life Brighton is characterised by sweet music that pervades the place. A visit can be very satisfactory indeed. Says Jamie Thom, 13, from Brighton, " I think this place is just amazing. There are so many animals. It is wonderful. It is a fantastic experience. It is great." Sea Life Centre might be a great place for entertainment but not everybody is convinced that entertainment and wonder should come at the cost of captive animals. "Entertainment and animal welfare or conservation run contrary to each other", says Casamitjana.

Sea World Brighton does attract researchers. Helen Braysher of Sussex University is conducting research to improve the welfare of Lulu, the captive turtle. Sea Life obtained this turtle from Blackpool and says that the animal cannot be released to the wild. But Daniel Turner of the Born Free Foundation disagrees. "There is research available now that suggests that animals like Sea Life's turtle Lulu can be released to the wild. Sea Life would not want to release Lulu because she attracts crowds."

Crowds do come to Sea Life Brighton. Many take some time off from relaxing by the Brighton Pier and Sea Life offers a suitable distraction. There are touch pools where it is possible for children to touch fishes like rays. Indeed many children seem to enjoy such an activity and there is much noise and splashing of water. But dissenting voices remain." Can you imagine how stressful it must be for the animals to be touched hundreds of times, possible even more, in one day ?" say both Casamitjana and Turner.

The conservation claims of Sea Life are also challenged." It is fine to have pictures and postcards and website information claiming conservation but my own

investigations and discussions with keepers of Sea Life Centre have not revealed any concrete information on how they assist conservation", says Casamitjana. And Turner says " If conservation in zoos is bad, conservation in aquariums is worse and many animals are held captive by Sea Life only for commercial purposes. Sea Life is an entertainment centre that has very little contact with conservation".

Sea Life is one case, London Aquarium is another. According to an education assistant at the London Aquarium who prefers anonymity, " The London Aquarium is the first of its kind in the capital and is one of Europe's largest exhibitions of global aquatic life." Her views are echoed in the London Aquarium guidebook which says that the London Aquarium is one of Europe's largest exhibitions of global aquatic life , displayed in over two and a half million litres of water.

The Aquarium was opened in 1997 and the displays are designed to theatrical, adding fun to the aquatic environments. And like Sea Life Brighton. London Aquarium, has the sound of waves and darkness creating a mesmerising ambience. There are three floors in the aquarium. The most popular exhibit seems to be the shark exhibit. There are four species of shark displayed at the London Aquarium, Sand tiger shark, brown shark, nurse shark and zebra shark. People gaze in wonder as the fishes glide past the,. There is even an arrangement whereby it is possible to hold an evening event near the shark tank herby one could listen to live bands and watch sharks.

The education assistant delivering the shark talk mentioned about the sharks' complete contentment in the aquarium. One visitor pointed out that one of the sharks had a collapsed dorsal fin. The education assistant informed that many visitors think that that is a sign of unhappiness since Killer Whales tend to have collapsed dorsal. He emphasised however, that with sharks it is nothing like that and that it is just another thing that happens in captivity. Says Rob Laidlaw of Zoocheck Canada, an organisation monitoring zoos, "In most cases the education assistants know nothing about what they are spouting to the public and of course, they cannot admit that there are wrong things happening in their institution, it would be suicidal for them."

The London Aquarium sharks have been caught in the wild from Florida as the

education assistant mentioned. According to Daniel Turner of the Born Free Foundation, this remains a problem. According to him, the majority of marine ornamental fish and invertebrates traded each year to supply hobbyists and commercial aquaria are collected from the wild. According to a Born Free Foundation document, fourteen to thirty million fish are collected annually to supply the aquarium industry." This kind of plunder is not only unsustainable for the ecosystem but is extremely cruel to the fish" says Jordi Casamitjana.

There is no information on breeding fish in either the Brighton Sea Life Centre or the London Aquarium. Sea Horse babies can be noticed in captivity in both the institutions. But both institutions refuse to reveal details and also to discuss issues of mortality. According to the born Free Foundation document, mortality of fish captured for the captive industry remains very high. The document states that at the National Marine Aquarium in Plymouth for every hundred fish brought in, less than ten would survive. In both Sea Life Centre Brighton and the London Aquarium, no staff were present to elaborate on conservation activities of the institutions. Indeed in both the centres, the 'conservation section' was empty. Jordi Casamitjana is convinced that the so called conservation activities of aquariums are just an eyewash to divert public attention. " As long as there are glittering posters, everyone is convinced that the aquariums are as good as gold", he says. Daniel Turner mentions that 80% of fish caught by cyanide poisoning die.

Sea Life Centre also decorates aquariums with Christmas presents in December and January. Rob Laidlaw says that decorating cages with unnatural material can be harmful for the inmates. Animal welfare organisations like Born Free Foundation and Advocates For Animals also allege that many animals in aquariums show high distress and abnormal behaviour. Both Sea Life Centre and the London Aquarium deny the charge but both institutions refused formal interviews of any of their staff.

London Aquarium is appreciated by many visitors. Says Sandra Harding, 33, a biology student of Sussex, " I believe it is a great place. It is doing great work for conservation. There are so many animals being saved by this centre. It is a place of wonder. It is great to see hundreds of species of fish in one place."

There are new plans to start more aquariums. London Zoo seems involved in a multimillion project to create a Docklands aquarium although the zoo officially declined to comment on this. Miranda Stevenson, Director Of The Federation Of UK Zoos, however did admit that there might be such plans in the offing. She also voiced the concern of the Federation regarding the purported conservation role of British aquariums. Presently, the only aquariums that are members of the Zoo Federation of UK are aquariums attached to zoos and thus most aquariums do not have to follow any mandatory requirements or guidelines set the Federation Of UK Zoos for conservation, education and animal welfare.

Happy crowds and beaming faces are observed in both the Sea Life Centre and the London Aquarium. These institutions insist the visitors come back again. Daniel Turner says they do not in most cases. Says Jordi Casamitjana, "It is difficult for people to empathise with fish as much as they might do with other animals in captivity. Very people equate aquariums with zoos. It is likely to remain difficult to convince people that these wonderlands are in reality, glass prisons."

A ZOO WITH A DIFFERENCE : THE MONKEY MINDS OF CORNWALL

A zoo speaking out against animal captivity? Incredible, isn't it ? But such an institution does exist. Welcome to the Cornwall Monkey Sanctuary in Looe, Cornwall. Founded in 1964 by the guitarist Leonard Williams, the Monkey Sanctuary has always remained very different from conventional zoos and in its attitude to captivity. Leonard Williams created a sanctuary for Woolly Monkeys rescued from the cruel trade. He rescued unwanted pet and zoo monkeys and at a time when this species of monkey hardly survived in captivity, he gave them the space and conditions appropriate for them to survive in captivity. At a time, when zoos kept these social animals singly or in pairs, Leonard Williams kept his animals in groups.

They thrived and bred. According to Brian Milton, trustee of the Money Sanctuary "Leonard Williams was unique in devoting all his space and resources into looking after this one species, and he created the first captive breeding colony of woolly monkeys in the world." There were plans to rehabilitate some animals back to their native country, Brazil. This plan was much in line with what zoos claim they aim for, the release of captive animals back to the wild.

Leonard Williams died in 1987, but his keepers continued his work and instituted several changes to benefit the monkeys. But the rehabilitation plan was set back by the discovery of a virus in 1998. This virus could have been passed on to wild monkeys had the release plan gone ahead, so the project was abandoned. Says Jordi Casamitjana, freelance animal welfare investigator and former director at the Woolly Monkey Sanctuary, "We can never be sure that a disease will not creep through a colony of animals intended for release. This makes all zoo release programs lethal. We realised it and accepted it but most zoos do not."

Most zoos also do not seem to accept the other realities of captivity admitted by this unique institution. Whilst it began by housing only one species, it now has facilities for other species of primates like rescued capuchin monkeys. "Contrary to what zoos do, we had specialised all our resources" says Casamitjana. The Woolly Monkey Sanctuary also always mentioned that the monkeys were meant for life in the wild and their needs were geared towards life in the wild rather than in captivity. "As an organisation that has housed monkeys for almost forty years, the Sanctuary is well placed to show, from first-hand experience, how monkeys in even the best captive conditions suffer from their captivity" says Hamilton. "Long-term captive breeding can cause unforeseen problems, viruses can linger for years undetected, the weather, the lack of space, the boredom caused by living in a safe and artificial environment; all these cause stress and health problems. This is an important message we give to our visitors in the summer" he adds.

Both Hamilton and Casamitjana say their time at the Woolly Monkey Sanctuary opened their eyes to the nature of suffering caused by captivity. "Captivity stifles the potential of any animal marked for release so all animals in zoos must be suffering badly." says Hamilton. Casamitjana adds "The Monkey Sanctuary attempted to give the best for its animals. The animals were there because there was no other alternative home for them and not as curiosities like in zoos". The sanctuary that failed to release animals provided with the best possible conditions is an example of the difficulty faced by the purported effort of zoos to save species.

The Woolly Monkey Sanctuary seems to have admitted failure in conserving species in captivity when most zoos are trumpeting the conservation ethic. It is now involved supporting rehabilitation centres for monkeys in Peru and around the world. As a captive institution admitting that ethics of captivity poses a problem, the Monkey Sanctuary is unique. As a place revealing the dangers of the widespread and grandiosely titled 'conservation breeding' schemes of zoos, it is even more so. Leonard Williams

had shown his affection for Woolly Monkeys in his book named 'SAMBA AND THE MONKEY MIND'. As far as exposing the traditional propaganda of zoos is concerned, this zoo with a difference does seem to have a monkey mind.

IN DEFENCE OF ZOOS

Looking at the stout figure of Miranda Stevenson lumbering in the salubrious surroundings of the Zoological Society Of London building, one does not quite easily get the impression that she is a confrontational individual. But the director of the Federation Of UK Zoos was extremely prepared to counter the allegations made by Daniel Turner of the Born Free Foundation on the whole ethic of keeping animals in captivity in British zoos.

Dr. Stevenson has extensive experience in the zoo industry. She has been working in zoos for the past thirty years and has a PhD in Animal Behaviour from Aberystwyth University. She also has an MBA under her belt from Edinburgh University and is a member of the Zoos Forum, the official body that advises the British government on zoos.

Dr. Stevenson does not think that there is much room for debate on the issue of zoo animals unlike Daniel Turner, who runs the Zoo Check project of the Born Free Foundation. A chartered field biologist who has worked in various capacities in South America and India on conservation issues, Mr. Turner has been part of a campaign to challenge the zoo industry of UK.

In 2001, the Zoo Check department of the Born Free Foundation spearheaded by Daniel Turner and Jordi Casamitjana published a report on British zoos entitled Zoo Health Check. The report alleged that out of the 450 zoos in Britain only 67 are members of the Federation of UK zoos and thus most zoos are not bound to follow any adequate standards of animal husbandry. The report also suggested that 25% of zoos functioning in UK are operating without a licence.

Dr. Stevenson denies the charges. "Whilst it is true that there are around 450 zoos in the UK and 67 of them are members of the Federation, it is not true that 25% of zoos are operating without a licence. The Zoo Health Check document has considered places keeping exotic domestic animals as zoos and that is faulty", she says.

Whilst Daniel Turner alleges that the Federation Of UK zoos is not representative of the UK zoo industry, Dr. Stevenson maintains it is of the responsible zoo industry. Asked about aquariums and other zoos that are not members of the Federation, she states that the Federation is encouraging more zoos and aquariums to join.

Do zoo animals ever get reintroduced as claimed by zoos ? Daniel Turner is presents facts to refute the claim: "There is very little commitment on the part of zoos for reintroduction. The results, where they have been any release at all, have been dismal". According to Turner, only 30% of British zoos are involved in any meaningful captive breeding programmes that might result in reintroduction.

Miranda Stevenson says that although most reintroductions fail, there have been notable successes like the Scimitar Horned Oryx(a species of antelope) in Tunisia and the Partula Snail in the Moorea islands. She says that zoos provide only nine per cent of animals for reintroduction. "Reintroduction is definitely not the only reason to keep animals in zoos" she adds.

There are scientists who believe that hybrid animals should be killed because they have no conservation value. Notable among them are popular science writers like Colin Tudge and Jeremy Cherfas. Miranda Stevenson is quick to point out that it is not the official policy of the Federation Of UK Zoos to kill hybrid animals. She however stresses that the Federation supports the sustainable use of animals for meat. "Conservation efforts have to take local needs into account. In countries like India many conservation projects have failed because they have not taken the needs of local communities to account" she says. The Born Free Foundation, however, remains opposed to the large scale commercialisation of wildlife.

British zoos kill surplus animals and Dr. Stevenson supports the policy. "The Federation officially supports culling of animals like the Arabian Oryx, because this species of antelope produces more males in captivity than females. The male calves have to be killed because no good homes can be found for them" says Stevenson. Daniel Turner says that the policy is unacceptable and irresponsible. " Does the Federation check all ten thousand zoos in the world to house the male calves ? " he asks.

The Federation Of UK zoos seems to have a problem with aquariums in UK presently since they obtain animals from the wild. "The sources are unsustainable" says Stevenson. Daniel Turner mentions that the mortality rate of animals in aquariums is very high and that if conservation in zoos is bad, it is worse in aquariums.

Speaking of conservation, the Zoo Health Check document questions the conservation involved in keeping animals in zoos if they cannot be released. The Federation Of UK Zoos says that animals in zoos have to be kept to create a genetic reserve for the future.

Zoos have considered as a legacy of imperialism by many scholars, the most notable of them being Randy Malamud. The historian Daniel Hahn also speaks of the imperialism legacy in his book 'The Tower Menagerie'. Daniel Turner agrees that all city zoos are a legacy of imperialism fighting for existence in the modern world. Miranda Stevenson disagrees. "London Zoo was started as a scientific institution and was always different from the Tower menagerie. Zoos have come a long way from the imperial menageries. They are now environmental resource centers" she points out.

The Federation Of UK Zoos does agree however that some people keep animals as status symbols or symbols of power. Notable among them were the gambler John Aspinall and the singer Tom Jones who kept chimpanzees. "Aspinall, however, turned his institution into a conservation centre" stresses Stevenson.

City zoos like London seem to animal husbandry problems. London Zoo has listed buildings that cannot be demolished even though they might be unsuitable for good animal husbandry. Both Miranda Stevenson and Daniel Turner agree on this.

Zoo Check, started in 1984, by the actors Virginia McKenna and Bill Travers, had a very high profile campaign against keeping Polar Bears in UK zoos. According to Daniel Turner Polar Bears went mad in UK zoos and zoos gave in to public pressure and started phasing them out. "The very fact that there are only two Polar Bears in UK today testify to the fact that the Zoo Check campaign was a success" suggests Turner.

Miranda Stevenson denies that the Zoo Check campaign had any impact on the decision of UK zoos to phase out Polar Bears. "The British zoo community as a forward thinking community that decided to forego keeping these animals since money and space would be better utilised on keeping more endangered species" she states.

In recent years, zoos have come under a lot of criticism from animal welfare organisations. The RSPCA published a report two years ago stating that elephants do very badly in UK zoos and should be phased

out. The authors of that report, Georgia Mason and Ros Clubb, researchers of Oxford University, published another report on large carnivores in zoos. This report, published in the prestigious scientific journal NATURE, suggests that large carnivorous animals, especially Polar Bears, suffer very badly in captivity and should be phased out of zoos. Daniel Turner clearly supports the findings of these investigations and believes they are logical.

Miranda Stevenson, on the other hand believes the researches are flawed and 'sexed up'. "It is nonsense to claim that elephants should not be kept in captivity since the Federation has published new standards on holding these animals in zoos" she reveals.

Zoos claim a role in education and even anti-zoo organisations like the Born Free Foundation do not deny this. However, the concept of educating people at the expense of animals that suffer in captivity is questioned by Daniel Turner. "It would be much better to explore new methods of educating people like introducing IMAX theatre films, videos, models and other methods that do not need the presence of live animals" says Turner. The Federation Of UK Zoos believes that there is no substitute for seeing the live animal.

Responding to allegations that the Institute Of Zoology at London Zoo conducts invasive experiments on animals, Miranda Stevenson says that the experiments follow regulations set by the government. The Born Free Foundation submits that the global zoo budget is around £6 billion but only around one per cent of the profits go for conservation. The Federation disputes the validity of such research. "I do not know where they get their data from" wonders Stevenson.

But the issue of zoos allegedly wasting money goes further than that. The Born Free Foundation compares the cost of keeping rhinos in captivity with that of preserving the entire habitat of Garamba National Park in Uganda. The foundation is of the opinion that the millions of dollars spent on keeping animals in zoos would be better used on protecting wild habitats.

Miranda Stevenson believes such cost comparisons are meaningless. "Zoos can only contribute to conservation if people come to visit them to see live animals. Money can only be gathered if people continue to visit zoos" she states.

Quoting an example, Miranda Stevenson speaks about an exhibit in Zurich Zoo that cost \$40 million to

build but will contribute \$100,000 every year to in situ conservation. According to her, the Zurich Zoo exhibit is the model for all zoos to follow in the future. She stresses that money used for building exhibits and enclosures would not be available for habitat conservation since they are meant only for that specific purpose.

Daniel Turner is unconvinced. "What could \$40 million do for habitat conservation? We raise hundreds and thousands of pounds for conservation without people coming to see any live animals. Who is going to check that Zurich Zoo will contribute \$100,000 dollars every year for habitat conservation?" exclaims Turner.

The Federation Of UK Zoos has contributed hundreds and thousands of dollars for field conservation projects and Miranda Stevenson says they will contribute more. But The Born Free Foundation maintains that compared to the worldwide resources the zoo community commands, that is still small and insignificant.

The Born Free Foundation published an investigative report last year alleging that a number of British zoos have dealt with animal dealers. These were Blackpool Zoo, Chessington World Of Adventures and Hamerton Zoo. Miranda Stevenson points out that during the time of the investigation, Chessington was not a member of the UK Zoo Federation and Hamerton is still not a member. "Blackpool Zoo was not aware of the credentials of the dealer. Whilst the Federation does not prevent zoos from dealing with dealers, we discourage it" she says. According to her, it would be foolish for a zoo to dispose off its animals without checking the credentials of the destination.

Indeed, the role of zoos in the illegal wild animal trade is a big issue. In the USA, the Center For Public Integrity commissioned a major investigation in this regard. Journalist Alan Green found that all reputable American zoos had dubious relations with illegal animal traders. Daniel Turner says that the situation might be the same in UK but it is difficult to obtain information considering the secretive nature of the zoo industry.

With the vast majority of zoos in UK not being members of the Federation, the principal question remains on the extent of the effectiveness of the Federation Of UK Zoos as a representative of the UK Zoo industry. Organisations like the Born Free Foundation put forward the argument that the Federation is trying to wash its hand off non-members. Miranda Stevenson strongly disagrees. "We are

doing everything we can to encourage more zoos to join the Federation" she asserts.

There are common areas of concern between the Federation of UK Zoos and the Born Free Foundation. Daniel Turner says that the Born Free Foundation played a role in the passage of the European Zoo Directive, a legislation to secure minimum standards for all European zoos. Miranda Stevenson does not think the Born Free Foundation had any role to play in the passage of the directive. But both agree that the short term goals of the Federation and Zoo Check are the same : to provide the best possible conditions for captive animals. The long term goals differ. Whereas the Federation of UK Zoos would like to see zoos exist in perpetuity, the Born Free Foundation would like to see them phased out.

It remains to be seen what shape the debate will take in the future. In 1993, the world zoo community published the World Zoo Conservation Strategy, a document outlining the role of zoos in conservation. The animal welfare community responded with the Zoo Inquiry in 1994, published by the Born Free Foundation and the World Society For The Protection Of Animals. The Zoo Inquiry challenged the aims and objectives stated in the World Zoo Conservation Strategy.

Next year will see the renewed drafts of both the documents and so the debate will take on a new shape. It will go on nevertheless with each side stating its case. It remains to be seen whom the public favours in the long run.

THE MAN WHO SAVED THE UNICORN

Unicorns are creatures in fables and myths but the Arabian Oryx is an animal that resembles it very closely in today's world. An antelope with spiralling horns it is an extraordinarily beautiful creature. Found in the Arabian deserts it was faced with extinction in the sixties and the seventies. The modern day unicorn would have vanished. Certainly. But for Dr. Mark Stanley-Price, a scientist who has single-handedly done more to salvage this animal from vanishing forever than anyone else.

Presently the Executive director of the Durrell Wildlife Conservation Trust, Dr. Mark Stanley Price has 25 years of hands-on experience with running conservation projects in Africa and Asia. He was one of the most influential people involved in reintroducing the Arabian Oryx to the wild in Oman. Considered to be one of the important thinkers in international conservation. Dr. Stanley Price elaborated the principles of releasing zoo animals to the wild.

The possibilities of zoo animals being released to the wild are very considerable according to Stanley Price. They depend on the species involved, the threats it is facing in the wild and the location of the zoo.

He says that simply maintaining large numbers of animals in captivity for release should not be the role for today's zoos. Instead, zoos should have a specific focus on how to manage animals in a way that will help their wild cousins.

Data from researchers, including Stanley-Price's own, suggest that zoos have not been the major contributors of animals for release programmes. But he insists that reintroduction should not be the only reason for keeping animals in zoos. Captive animals can be of immense public benefit and awareness, according to the man now responsible for a lot of what goes on in Gerald Durrell's famed Jersey Zoo.

The Arabian Oryx project has now been questioned since many animals have been poached back for collections. Zoo critics allege that zoos did not have a sufficient commitment for the animals when they were released. Some organisations have openly challenged the whole conservation ethic of the project. Stanley-Price is not willing to blame zoos for the present situation though. "To say that the project is in difficulty due to the lack of commitment of zoos does not quite get the flavour of the oryx reintroduction correctly." he says.

He mentions that the initiative and responsibility for bringing the oryx back to Oman lay solely with the Government of Oman, which went into the background of the wild extirpation and possibilities for restoration extremely thoroughly over a period of some 5 years. Every problem was foreseen and explored under the conditions of that time.

Having been intimately involved with the project. Dr. Stanley Price points out the sociologically dynamic nature of West Asian society. "There is considerable wealth and fast developments and changes to traditional life styles. It is changes in civil society within Oman and the region that is causing the oryx's present problems. But, these are well known within Oman, and I am confident that they will be overcome.", he adds.

There have been well documented cases of captive animals spreading disease to wild animals when

released. Dr. Stanley Price admits this but says that the issue is not whether the standards set by zoos are foolproof. "Just as hospitals are increasingly felt to be a place in which to pick up infections, so zoos have to be diligent to ensure first rate hygiene and bio-security", states Dr. Stanley-Price. He advises greater caution and prudence for zoos aiming to reintroduce animals.

Reintroduction of zoo animals have not been many and quite a lot have failed and remain controversial to this day. As one of the acknowledged pioneers of the reintroduction of animals, Mark Stanley-Price believes that Golden Lion Tamarin(a Brazilian species of small monkey) project has been the most successful one. Apart from helping to increase the number of wild animals, the project has also engendered a strong conservation ethic in the people of Brazil. New habitat for the monkeys has also been bought by zoos, including Jersey Zoo directed by Dr. Stanley-Price himself.

One of the most stringent criticisms of Western zoos is that they keep Asian and African animals for show without considering the destruction of their own native fauna. Also that these zoos in the West are too keen to reintroduce animals to Third World countries when they have wiped out all their animals. So a Western zoo preaching about releasing tigers and lions to Asia and Africa is considered to be hypocritical considering Britain has no wolves and bears and is unlikely to welcome their return. Would Western zoos accept it if Asian and African zoos wanted to release bears and wolves to UK And USA? Dr. Stanley-Price challenges the notion : "I have not heard of any proposals to reintroduce lions or tigers from western zoos into Asia and Africa. I don't think the situation warrants this and it would be a high risk option". He however adds that there would be nothing wrong in terms of logic and symmetry if Asian and African zoos wanted to reintroduce wolves and bears in the West providing they have the correct species.

Reintroduction of animals is a tremendous conservation tool to save species according to him. For a person who has been involved in some of the world's most high profile animal conservation projects, Dr. Stanley Price is quick to mention that reintroduction programmes are complex and take a long time to be designed and implemented.

The final message of the saviour of the unicorn is : "My experience is that the return of a species to its homeland (usually necessary because there are no individuals in the country even in zoos) is a tremendous publicity coup for responsible conservation, with multiple appeals and benefits for conservation and environmental awareness."

HIS WIFE AND OTHER ANIMALS

Jersey Zoo is advertised as 'a zoo that makes you feel there is hope' and 'seeing is believing'. Started by the author of MY FAMILY AND OTHER ANIMALS, Gerald Durrell, it is still considered to be one of the best zoos in the world.

Many people who would normally be opposed to zoos admit that Jersey Zoo is 'the best of a bad lot' or indeed somewhat special. One of the very few zoos that keep some animals in complete freedom, Jersey Zoo has several small species of monkeys like the Golden Lion Tamarin living free in the woods. Although possibly less spectacular visibly and superficially (the zoo covers only about 30 acres) than many others, many animal welfare groups believe that it is the attitude of Jersey Zoo staff towards animals that is different. It is now led by Mrs. Lee Durrell, Gerald Durrell's widow.

Dr. Lee Durrell, Honorary Director of the Durrell Wildlife Conservation Trust was born in Memphis, Tennessee on 7th September, 1949. Her interest in the natural world emerged early, and as a child she would spend hours filling empty doll boxes with collections of animals. She later studied philosophy at Bryn Mawr college in Philadelphia, before enrolling in a graduate programme at Duke University to study animal behaviour in 1971. Lee became fascinated by animal communication, and conducted research for her PhD on the calls of mammals and birds in a politically turbulent Madagascar.

In 1977, Gerald Durrell was invited to give a lecture at Duke University where Lee was writing up her PhD thesis and running biology courses, and the rest, as the Jersey Zoo staff say, is history! Gerald and Lee were married in 1979, and before long Lee became involved with the Durrell Wildlife Conservation Trust's established breeding programmes. She later influenced the development of new overseas projects, and for many years was the coordinator of the Trust's Madagascar programme.

When Gerald Durrell passed away in 1995, Lee succeeded him as Honorary Director of the Durrell Wildlife Conservation trust, and maintains an active involvement in the Trust's work, both in Jersey and overseas. In an interview, she elaborated her views on zoos.

Dr. Durrell believes that there has been no significant change in the policies of Jersey Zoo on conservation since Gerald Durrell died, but some might say that the emphasis has shifted as the Trust has evolved over the last ten years. They now focus more on in situ conservation than before, and see

the role of zoos as multi-faceted.

"For some zoos, it is appropriate to emphasise captive breeding, for others, professional training, education and inspiration, for others, research, for others, a good mix of all. We fall into the latter category" she says.

Dr. Durrell believes that zoos can be improved in the countries of origin of endangered animals but that depends on the situation in the country involved. Cultural and administrative factors matter according to her in such efforts to help foreign zoos. Jersey Zoo has always been in the forefront of the zoo community in donating money for field conservation.

"I can say that last year we spent approximately a quarter of a million pounds on 'direct' conservation, ie., costs deriving directly from in situ expenditure, but if you include 'indirect' costs. eg, training of professionals who return to their countries and undertake in situ conservation, the figure goes up" states Mrs. Durrell. She adds that figures are similar for recent past years. "I believe that more should be allocated to in situ conservation" she mentions.

Lee Durrell believes that the progressive zoo community has certainly said a lot to condemn the bad zoos but only the politicians and legislators can translate these strongly expressed opinions into action. She thinks that this is happening in the UK with ever tighter implementation of the Zoo Licencing Act. In general, Jersey Zoo does not formally take a public or political stance on any controversial issue, for it is not considered as a lobbying organisation. "We feel that unless an issue has been thoroughly researched by our own governing body, we should not make statements on issues like culling of animals and sustainable use of animals for meat" says Mrs. Durrell.

Mrs. Durrell points out that : "There are personal opinions among the staff of Jersey Zoo on these matters but recently, we have made a statement on the bushmeat crisis , by lending our name to the campaign against it and by supporting research to try to understand and overcome it."

Mrs. Durrell is of the opinion that zoos should and do work with animal welfare groups. "There is scope for even more cooperation" she says. She however distinguishes between animal welfare groups and animal rights groups because she thinks they are intellectually different. "The rights groups seem to be driven by such diverse thinking and motivation that choosing to work with them must be done on a

case by case basis" Mrs. Durrell opines.

Since Gerald Durrell started Jersey Zoo, some other zoos have modeled themselves on his creation. Many zoo professionals now think that it is less unique than it used to be since others are doing the same thing. But Mrs Durrell believes that Jersey Zoo is still exceptional. She puts forward that : "We are still at the forefront of conservation thinking and we're going from strength to strength."

Mrs Durrell believes that "although in an ideal world there would be no need for zoos, but the world is so far from ideal and is never likely to become ideal, that zoos have a vital function."

She goes on to say that zoos have multiple functions: maintaining breeding populations of endangered species, providing research, training and education resources in the service of biodiversity conservation, inspiring awareness, love and, therefore, support for conservation.

According to Mrs. Durrell, the most successful conservation projects involving zoos have two contenders: "the Madagascar Fauna Group(MFG) for biodiversity in Madagascar and the International Committee for the Conservation and management of the Lion Tamarin species(a species of monkey) of Brazil, which bring together diverse supporters, including zoos." Mrs. Durrell is an individual who supported Gerald Durrell in all his efforts for his Trust at Jersey Zoo since 1979. Now he has gone, but her support remains all the same.

CRITICAL ESSAY

The project started off with a longstanding interest in animals in captivity. Whereas initially this was just a form of curiosity, over a period of time questions began to creep about the feasibility of the whole idea. Conventional visits to zoos increasingly started revealing disturbing facts. Animals seemed in pain and their holding facilities inadequate. However, there seemed to be an enormous amount of propaganda in favour of zoos spewing out of the industry itself. The leading figure in this was Gerald Durrell, author and founder of the Jersey Zoo and the Durrell Wildlife Conservation Trust. His books seemed mesmerising and enticing and for years have fascinated millions of people. Besides, the rapidly growing environmental movement seemed to have endorsed the conservation potential of zoos by keeping animals in captivity. The world's leading conservation organisation, the IUCN(International Union For the Conservation Of Nature And Natural Resources) also seemed very supportive of the zoo

ethic and started a Conservation Breeding Specialist Group that had many zoos as members.

But many important questions were left unanswered. The conservation role of zoos had not arisen until the 1960s and that too only under pressure due the environmental movement egged by pioneers like Rachel Carson and Jacques Cousteau. With the threatened closure of London Zoo in 1991, these questions mushroomed in Britain. There seemed to be a strong public debate on the ethics of keeping animals in captivity in an urban place like Regent's Park. In a country like Britain, the anti-zoo movement had already started with the formation of Zoo Check, a campaigning lobby started by actors Virginia McKenna and Bill Travers. In 1991, as London Zoo languished, Zoo Check flourished. London Zoo survived with generous donations from wealthy businessmen but questions were increasingly being raised if these large sums of money were simply wasted to prolong a worldwide anachronism.

London Zoo's shaky state of existence was undoubtedly one of the motivating factors in the consideration of this subject as a suitable topic of investigation. Another important factor was the involvement of Western NGOs and zoos in spreading the zoo message in developing countries. London Zoo had donned a new garb of "Conservation In Action" and presented itself as the self proclaimed bandleader of the British zoo community. British zoos started funding zoo activities in many countries in Asia, including India. But one overriding question remained : why keep animals in captivity in Europe and America from Asia and Africa. One of the reasons given by the western zoo community for conducting captive breeding programmes was that Third World countries are unstable, economically and politically to look after their own animals so for the good of the animals they must be captured and taken to zoos in Europe and America. There were many leading voices in this philosophy, including Gerald Durrell and John Aspinall, two of the most charismatic zoo owners in the world. IUCN also instituted the now much widespread and acclaimed slogan of "Think globally, act locally". But somehow this logic seemed very far from indisputable considering the record of zoos till date.

Visits to many zoos in India and first hand involvement in animal welfare and

conservation projects over a number of years also contributed to the choice of the topic. The project followed a number of methods that included interviews, archival material research, zoo visits and web based research. Specific zoos were chosen as representative of the zoo world in Britain. Jersey, Howletts and London were the principal zoos taken into consideration for the project. However, it was evident throughout the whole project that the zoo community was very extremely chary about talking on issues of controversy. It was relatively easy to write the feature on the pattern of ownership of zoos since a lot of material is available on Jersey, Howletts and Twycross zoos. Both Jersey and Howletts zoos have been visited. These zoos are shown by the British zoo industry as leading figures in the zoo world and thus an attempt was made to find out what made them so special. These zoos also gave a very good example of the mentality of zoo owners. Visits to Jersey and Howletts however revealed that probably these institutions are less unique than they claim to be. After the death of the founders of these two institutions, both seem to be taking the easy way of commercialism to attract more money to tap visitors. Indeed, both the institutions heavily resented any question concerning any apparent change in policy deemed to be out of line with the zoos' original philosophy.

There seems to be a very distinct gap between the zoo community and the animal welfare community in UK. There is no communication between zoos and animal welfare organisations on some matters that might be of common interest. The whole issue of keeping animals in zoos seemed very far from a black and white issue. There seemed to be shades of grey. But overall, the extreme reticence of the zoo community to talk and address issues left ample room to doubt the desirability of keeping animals in captivity and the effectiveness of the whole concept. Indeed, the Zoological Society Of London did everything possible to endlessly delay and eventually deny interviews with any staff member, including Chris West, the director of London Zoo. London Zoo also systematically endeavoured to shift the focus of the project away from London Zoo to its sister concern in Whipsnade, possibly because Whipsnade is more of a safari park than a zoo and is thus less likely to invite criticism.

London Zoo's concern for interviews seemed extremely understandable considering the fact that it has been the centre stage for the zoo debate in UK for the past fifteen

years. It has repeatedly been castigated by the animal welfare community of UK, including RSPCA, the leading animal welfare organisation in UK. It seems London Zoo's intransigence is quite widespread. It withdrew support from the RSPCA commissioned study on elephants a few years ago and has been highly critical of any research or exposure concerning the welfare of animals in captivity. But most of the claims of London Zoo are quite well advertised in the zoo premises in the signboards and also on the website. It does seem that London Zoo's claims about animal conservation and especially about reintroduction of animals are refuted in many ways by what is plainly visible to any visitor at London Zoo. There seems to be no evidence for any successful reintroduction of animals from London Zoo to the wild apart from Partula Snails and Field Crickets. London Zoo also publicised the arrival of Komodo Dragons recently with the enclosure being officially opened by Sir David Attenborough. Asked exactly how the captive dragons would aid conservation, Sir David declined to comment. Sir David also refused an interview to share his views on zoos.

Dr. Miranda Stevenson, director of the Federation of UK Zoos was very cooperative in submitting herself for an interview. A very amiable personality, she was a pleasure to talk to. Dr. Stevenson is of the opinion that there are not many views involved in saving animal species and all organisations have to cooperate to work for the benefit of the species. Dr. Stevenson in the interview, did seem to speak overwhelmingly about zoos that were members of the Federation Of UK Zoos. This however, in many ways can be construed to be a misrepresentation of the British zoo community since the majority of zoos in UK are not members of the Federation of UK Zoos. Also, Dr. Stevenson did everything to deny that Zoo Check has had any effect on the zoo industry in Britain. This was a bit surprising since some of the major changes in zoos in UK are very much what Zoo Check was pressing for. Dr. Stevenson was quite willing to discuss controversial issues and spoke about the importance of dialogue between people of differing philosophies.

The lack of dialogue to tackle issues of concern was starkly exposed by the fact that Craig Redmond of Captive Animals Protection Society refused an interview although extending assurances twice. Indeed, from the website of the Captive Animals Protection Society and the campaigns conducted by them, it seems that their agenda is

based principally on philosophy and not much on facts. The apparent failure of animal welfare organisations like the Captive Animals Protection Society to address the issue logically makes it difficult to determine some of the claims made by animal welfare organisations against zoos.

Some claims, but definitely not all, were substantiated by Daniel Turner of the Born Free Foundation in an interview. Turner provided some evidence showing that zoos were nothing but profit making businesses and that a lot of the so called modern zoo activity was an eyewash to conceal questionable activities.

Information from a zoo conference held in London Zoo in February, 2004 shows that even now there is no agreed policy on what zoos are or should become. The lack of cooperation and coordination in carrying out the stated aims of the zoo industry was starkly revealed in the conference. Besides, many pronouncements made at the conference seemed self contradictory and self serving. The conference document also does not, by any stretch of the imagination, refute the claims of the anti-zoo lobby at all.

There has been a great deal of literature published on zoos as a legacy of imperialism. London Zoo, with its antiquated architecture, has been cited as a relic of a bygone age by the animal welfare community and many members of the general public. Thee recent television serial on the Tower Menagerie has given new impetus to this view. Daniel Hahn has also published a book by the same name. Other books that proved to be of great use in examining the concept were Randy Malamud's 'READING ZOOS' and 'ZOO' by Eric Baratay Eilsabeth Hardouin-Fugier. These books provide a lot of weight to the argument that all zoos, especially city zoos are basically a product of imperialism signifying man's domination over nature. London Zoo with a number of listed building's including Sir Hugh Casson's Elephant House and Lubetkin's Penguin Pool does indeed provide a taste of the bygone imperial days. It was interesting to note that although Dr. Stevenson acknowledged that London Zoo was formed during the imperial age, it was different from the Tower Menagerie because it was a scientific institution. Most animal welfare organisations claim that there was and is no difference between the Tower Menagerie and London Zoo and London Zoo still represents an

imperial attitude towards nature by incarcerating animals in captivity.

One of the most intriguing aspects of the project concerned watery zoos or aquariums. The Sea Life Centre in Brighton was visited as was the London Aquarium. Although both institutions very successfully create an atmosphere of marine ambience, the artificiality of both the places clearly comes through if one observes closely. Most visitors to both these places were observed having fun and having a good do rather than indulging in any meaningful conservation activity. Hordes of children were noticed creating a racket whenever they saw any fish swim past glass panels especially sharks. In both the places, the conservation department was conspicuously devoid of staff. Also, in both institutions, children were encouraged to touch rays in an open tank. Many children were observed mistreating these animals by pulling and tugging at their membranes and no member of staff discouraged this kind of activity. Also the sheer numbers of fishes and other marine invertebrates seen in these aquariums seemed much too large to have been acquired or bred on a sustainable basis. Both Sea Life Centre, Brighton and the London Aquarium refused interviews. Also, the proposed development of the London Docklands Aquarium seems very much based on a commercial and entertainment motive rather than a conservation one. A new prospect, that could not be verified, was that of dolphins being kept in captivity for allegedly conservation purposes in the London Aquarium. Indeed, if this took place, it would be a new development in the captive animal industry in UK since dolphins have been banned in UK zoos and aquariums for more than a decade now. It was also noted that neither Brighton Sea Life Centre nor London Aquarium is a member of the Federation Of UK Zoos and is not obliged to follow any guidelines for keeping their animals. There was evidence presented by the Born Free Foundation regarding millions of sea creatures being caught from the wild to stock aquariums and indeed both the aquariums admitted that most of their animals were caught from the wild. If the number of animals caught from the wild for the aquarium industry is above the million mark, very serious questions can be asked about the effect this kind of intake is having on wild ecosystems and what validity there is to the conservation claims made by these aquariums.

Since most zoos claim a role in reintroducing animals back to the wild, some experts

were interviewed about the feasibility of such schemes. The consensus of opinion among the people interviewed was that zoos have not and are not making a major contribution to reintroduction projects. This fact seems to have been accepted by Dr. Miranda Stevenson of the Federation Of UK Zoos who admitted that most reintroductions end up being failures. Whilst Dr. Stevenson insisted that reintroduction of animals is not the only reason why animals are kept in zoos, scientists such as Colin Tudge, formerly a member of the Zoological Society Of London and John Fa of the Durrell Wildlife Conservation Trust both refuted her assertion leaving room for genuine doubt on the commitment and achievements of zoos regarding reintroduction. Indeed, the leading conservation body, IUCN clearly states that very few reintroduction programmes involve zoos.

The most stringent criticism on keeping animals in captivity in recent times has come from two researchers in Oxford University, Drs. Ros Clubb and Georgia Mason. Their studies on the ill effects of captivity on elephants and large carnivores have made headlines in newspapers as also in scientific circles. Dr. Mason went out of her way to assist the project and provided copies of all her papers although she is in the process of emigrating to Canada. The Mason Clubb studies clearly suggest that it would be better for some species of animals, particularly elephants and polar bears, if zoos stopped housing them in captivity. Their suggestion that the very nature of captivity causes suffering and 'stereotypic' behaviour, a form of meaningless repetitive behaviour akin to madness does reveal the harmful effects of zoos. Not surprisingly, the zoo community denies the validity of their research and Miranda Stevenson alleged that the papers were 'sexed up' for dramatic effect. No evidence was found to corroborate Dr. Stevenson's claim so it is a matter of inference if the papers are challenging an accepted notion truthfully or if they are flawed.

The most vociferous critics of the zoo industry came from a captive institution, the Woolly Monkey Sanctuary in Cornwall. Brian Hamilton, Trustee, and Jordi Casamitjana both clearly stated that animal captivity has no justification, none at all and that all claims of zoos regarding conservation, education and recreation are, for all practical purposes redundant. Coming from an institution that has experience in keeping animals for forty years, this was an important revelation. The Cornwall Monkey

Sanctuary seemed to be the only captive institution in Britain that was willing to admit that there are glaring deficiencies in keeping animals in captivity anywhere.

The inspiration behind the project came from 'ANIMAL UNDERWORLD' a book written by veteran American investigative journalist Alan Green and published by the Center For public Integrity. Green wrote what is considered to be one of the most searing exposes of the captive wild animal industry in recent times. His investigative project, endorsed by the Center For Public Integrity, revealed that almost all major zoos in the US, to say nothing of the numerous slum ones, are heavily involved in the illegal wild animal trade. Once, an animal is considered 'surplus' to requirements, it is disposed off by zoos, just as water bottles and tin cans are. 'ANIMAL UNDERWORLD' remains a remarkable piece off investigative journalism and is a milestone in the effort to portray the reality of animal captivity.

Throughout the project, there emerged precious little to be said in favour of zoos. Of course, their reluctance to speak in the wake of allegations made it much easier to make the case against them since so much evidence was available on the contrary. Except for available evidence for the much publicised efforts of a few individuals like Gerald Durrell, John Aspinall and Molly Badham who started zoos that have seemingly contributed to species conservation and animal welfare, there does not seem to any available material to suggest that the zoo industry has done anything remarkable to sanitise its existence. But the PR efforts of both zoos and aquariums seemed remarkable, spouting out endless messages of conservation, mostly unsubstantiated. The only area where zoos do seem to have contributed towards conservation in any significant proportion is by raising funds for habitat protection. However, even this approach remains questionable since other conservation organisations have raised much more money without keeping any animals in captivity.

Considering time constraints, the project had several limitations. One of the key issues concerning animal captivity, the relation of zoos with illegal animal traders could not be looked at in the British context. The Observer of the 28th of March, 2004, published an article on this and this was considered in the project. It was also not possible to interview more zoo directors considering their intractability and enormous

unwillingness towards any kind of open discussion. The issue of the private ownership of zoos could only focus on the positive aspects since it considered the better zoos like Jersey, Howletts and Twycross. There remain many more zoos in private hands that continue to keep and exploit animals in bad conditions. A detailed and comparative cost study of in situ conservation with ex situ conservation could not be carried out. A lot of information could not be gathered on the London Aquarium that is meant to be one of the most expensive captive facilities anywhere in Europe. Many farm parks have taken to keeping wild animals but these could not be visited. An interview with a member of the bastion of the British zoo establishment, London Zoo could not be carried out. Enough research could not be carried on the alternatives to zoos such as TV channels and IMAX theatres which are espoused by animal welfare organisations as being suitable for young children to learn about animals. A survey could not be carried out if people in UK would still visit zoos even though they knew they were not doing anything for conservation and that animals were suffering.

The project received a lot of help from some individuals who have been associated with zoo animals for a number of years. Mr. Rob Laidlaw of Zoocheck Canada provided a lot of information, material and moral support from a North American, Asian and indeed a global perspective. His support for the project led to many new areas worthy of exploration.
