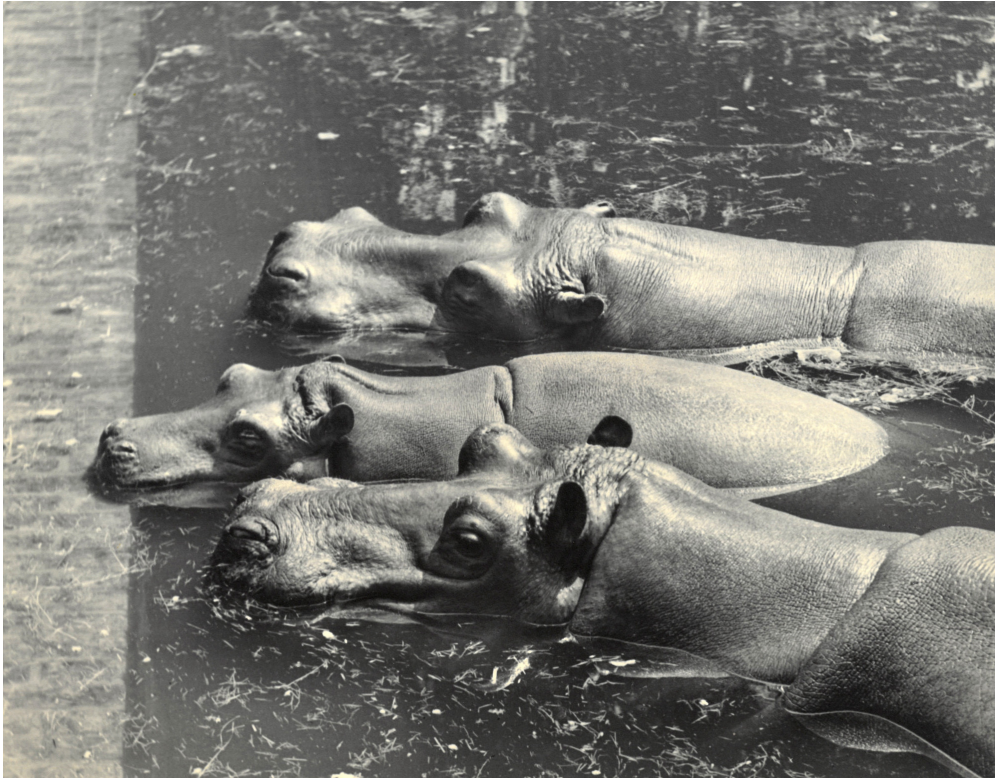


How Do Animals End Up in the Zoo?

Political, logistical, and moral challenges



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The hippos “Knautschke” (bottom), the young animal “Jette” (middle) and “Bulette” (top), around 1959. (AZGB, image: Hoppe. All rights reserved.)

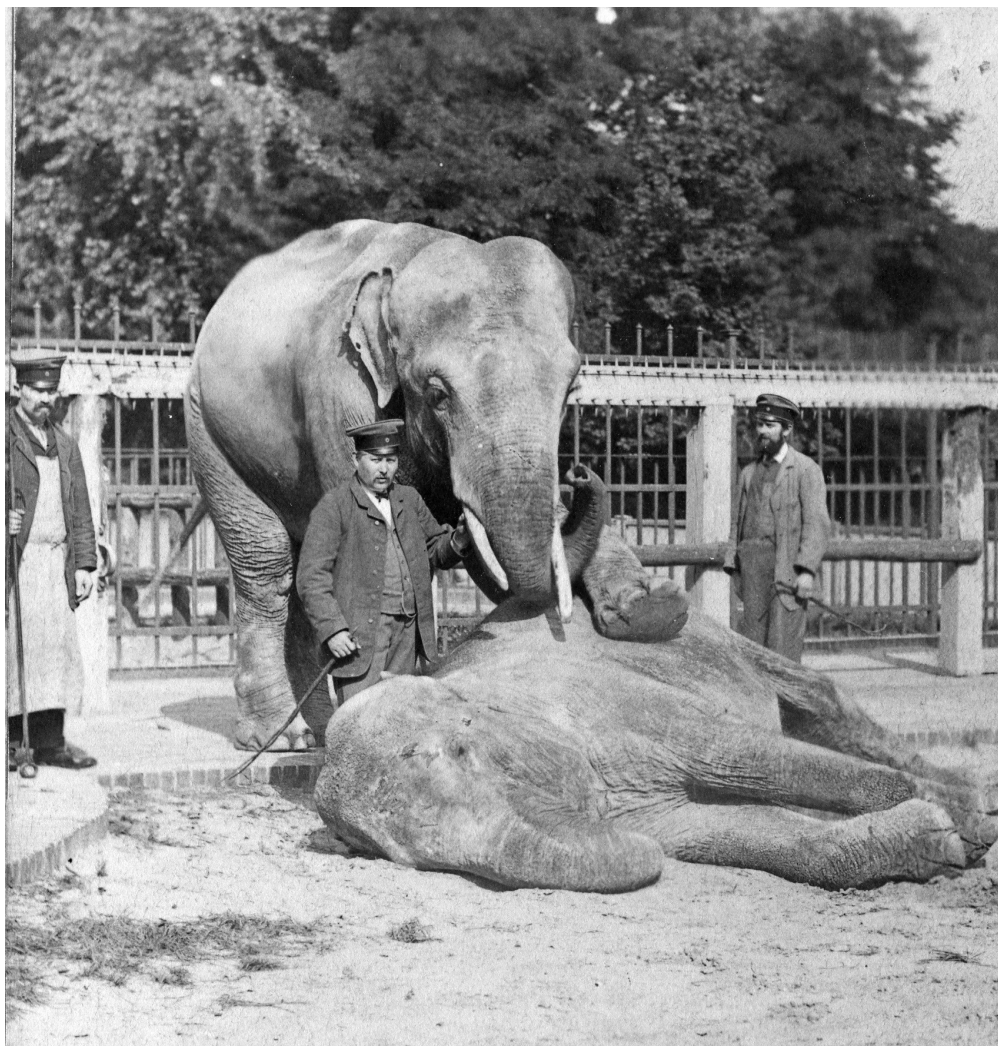
How do animals actually get to the zoo? Visitors to an animal park or zoo probably rarely ask themselves this question. Yet the animals on display are usually the reason for the visit and are also the founding premise of the zoo as an institution. Historically, zoos themselves have not routinely specified the sources of their animals. The animal itself, not its original habitat, has often been the point of focus. Sometimes, however, the origin of the animal was integral to the fundamental idea behind the exhibition. For example, at the end of the 19th century and in the 1930s, when animals from the (former) German colonies were explicitly labelled or marketed as such, or when attempts of back-breeding extinct animals were intended to enhance the reputation of a zoo director. Today, zoos are keen to emphasise the origins of animals from international breeding programmes as a form of progress and as part of their species conservation efforts. But where did and do zoo animals actually come from?

To the present day, the provenance of zoo animals varies widely. Sometimes they arrive at the institutions as gifts or [casual purchases](#), sometimes as a result of long-term groundwork. Their paths always reflect geopolitical, economic and scientific dynamics. Some means of acquiring animals developed relatively late in the more than 250-year-long history of 'modern' zoos. There are also some sources of animals that have consistently played an important role. It is thus a matter of both change and continuity.

Hunting and Gifting

At the time of the establishment of the first zoological gardens dubbed 'modern' or 'scientific', especially in Europe and North America around the middle of the 19th century, all the animals exhibited there and not native to the area were captured in the wild, see also [Catching Animals](#). The hunters were local amateurs or professionals, or specially dispatched trappers who were either paid by a company, or who caught the animals at their own expense and then offered them up for sale. Although animals of native species were also caught wild, collections of these were often dominated by those bred in the former menageries of manorial estates or in the early animal collections of particular cities. This was especially the case for hoofed animal species, pheasants, and indigenous rodents.

Many of the non-native animals in the early days of European zoos were gifts from the ruler of a given territory. These, in turn, might have received them as gifts themselves from other rulers or heads of state, or been presented with them by explorers or nobles. The latter might have caught or bought the animal themselves. Gifts of animals were always especially valent as political gestures. A diplomatic value was attributed to the possession of these animals. This value depended on how rare or dangerous, how large or heavy an animal was, and whether it was a species previously unknown in the context of European gift-giving. This was related to the fact that the acquisition of these animals often involved great expense and therefore the animals also had financial market value, which was translated into diplomatic value through the act of gift-giving.



The two Asian elephants “Omar” and “Rostom” were gifts given to the Prussian royal family by their relative in the British royal family in 1881. (AZGB. All rights reserved.)

The practice of gift-giving continued with colonial expansion, from which all zoos and natural history collections benefitted, including the Berlin Zoological Garden, see also [Purchased from a Caravan](#) and [From Pests to Displays](#). Members of the imperial household, governors, colonial societies, as well as merchants and colonial officials involved in the exploitation of conquered territories donated animals from the colonies to the zoo in the imperial capital. The circumstances of the catching or purchasing of these animals were of no interest to the zoo management and were not recorded. Beginning in 1891, the zoo’s annual reports regularly mention gifts from German colonial territories. In 1907, the Zoological Garden had eleven lions in its possession, and only one of these animals had not been a gift from the colonies.¹

In some particular cases, political gifts or loans still carry significant weight in Berlin zoos today. During the Cold War, this was true of the Zoological Garden in West Berlin as well as the Tierpark Berlin, located in the east of the divided city, which was supported by donations from socialist countries. A well-known example of political gifts were the pandas “Bao Bao” and “Tien Tien”, which came to the Berlin Zoo in 1980 as a gift from Chinese Prime Minister Hua Guofeng to the West German head of government, Helmut Schmidt.

In the last three decades of the 19th century, however, another important provenance of animals, which was also largely based on the exploitation of animal populations living in their natural habitats, had already become a major feature – the trade in animals.²

The International Animal Trade

Starting from opportunistic purchases of smaller animals brought by travellers or sailors aboard ships from colonial trading posts to European ports, companies specialising in animal trade began to develop. Gradually, these expanded extensive [networks](#) of trappers and commercial agents throughout the European colonies and beyond, for a detailed account of which see [Catching Animals](#). Their business model was founded on the system of colonial exploitation that was a necessary condition of European power over cheap local labour and the environment of other regions of the world. It was driven economically by the demand provided by European zoos and private collectors.

By the end of the 19th century, zoos could draw on a wide range of offerings from several professional dealers. Animals were auctioned off at annual sales fairs and in dealers' warehouses in ports. Some dealers informed zoo directors of their trapping plans ahead of time, or even took requests. The large trading houses such as Jamrach in London, Hagenbeck in Hamburg, or Reiche in Alfeld would often bundle their shipments in the area of origin and then supply several zoos – with a large number of animals dying in transit, which was reported and discussed in journals such as ["Der Zoologische Garten"](#). This risk applied for charismatic mammals and marine animals alike.³



Arrival of new animals for the Berlin Aquarium, likely from a larger shipment around 1920. (AZGB. All rights reserved.)



Giraffe shipment for the zoo, 1928. (AZGB, image: Wolter. All rights reserved.)

The Breeding of Zoo Animals and the End of the Animal Trade

The Second World War initially put an end to the international trade in wild animals. In Germany, zoos benefitted from the theft of animals from zoos in conquered territories. Animals were brought into the German Reich as spoils of war. After the end of the war, the trade flourished again for a short time, but there were already signs that it would soon come to an end. Commercial hunting and habitat destruction had led to massive declines in many animal species all over the world.

The extent of species decline was also felt in German zoos. However, the institutions were faced with a dilemma. For some, doing without endangered but highly display-worthy animals meant fearing that they would lose visitors if they no longer exhibited animals that had hitherto been associated with a certain prestige. Although German zoo directors – exclusively men after the forced retirement of [Katharina Heinroth](#) – had discussed a ban on importing wild-caught specimens of such species as early as 1962,⁴ having the most species-rich zoo in Germany, Europe, or even the world was still considered a mark of prestige by many of them. Neither German nor international zoo directors were of one mind on what measures should be taken. Some were reluctant to self-imposed restrictions on the import of endangered species. They saw their zoos as possible sanctuaries and breeding sites for endangered species, while others saw zoos in a relationship of direct responsibility, and advocated for strict regulations on importing and keeping endangered species. In 1970, the GDR's Kommission der Tiergärten, or Commission for Zoos, under the leadership of the zoo director Heinrich Dathe, declared itself against an import ban on endangered orang-utans. Dathe had plans for a new ape house with these animals in the same year.

Ultimately, in the mid-1970s, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, also called Washington Convention) put strict limitations on zoos buying or trading in endangered species in the vast majority of cases. The International Union for Conservation of Nature and Natural Resources (IUCN), had made a strong case for this. The Washington Convention thus served to occasion an increase in zoos breeding their own animal offspring, a practice that had already been in place for decades.

Two different breeding contexts in zoos emerge in view of this. Improvements in the conditions in which the animals were kept led to both accidental and desired offspring in zoos from the 1880s onwards at the latest. These enriched the animal population without incurring additional costs, and could also be traded with other zoos for further sought-after animals. At the turn of the 19th century to the 20th, such trades were still made by handshake agreements between zoo directors.⁵ Swapping animals between zoos became the most important source of animals for the Berlin Zoo after the end of the First World War, since Germany was excluded from international animal trade, and zoos had (no funds) to purchase animals due to inflation. The Berlin Zoo's annual report for 1919, for example, explicitly states that animals could only be acquired through trades with other German zoos. The aim was to maintain the animal population through breeding. In the following years, too, there is only mention of animals exchanged between German zoos. The exception is the Aquarium, which received a shipment of (horseshoe crabs) from the New York Zoo in 1920. However, even these were a gift from a colleague working there.⁶ It was only from the end of the 1920s, according to the zoo's (journals), that it was once more possible to purchase animals.

The exchange system as a whole, however, became so well established in the course of the first half of the 20th century that (lists of animals) available for swapping were circulated amongst the zoos of Germany and Europe. The archives of the Berlin Zoological Gardens contain countless 'lists of offerings' from zoos and animal parks. For some years, the zoo kept a whole series of chronologically arranged files with animal offerings and requests. From 1955 onward, even the direct competitors in Berlin – the Zoo and the Tierpark – exchanged animals. Apart from direct requests, which resulted from each institution's knowledge of the other's animal population, both animal parks exchanged wish lists and lists of offerings.⁷ Of course, international exchanges also took place.

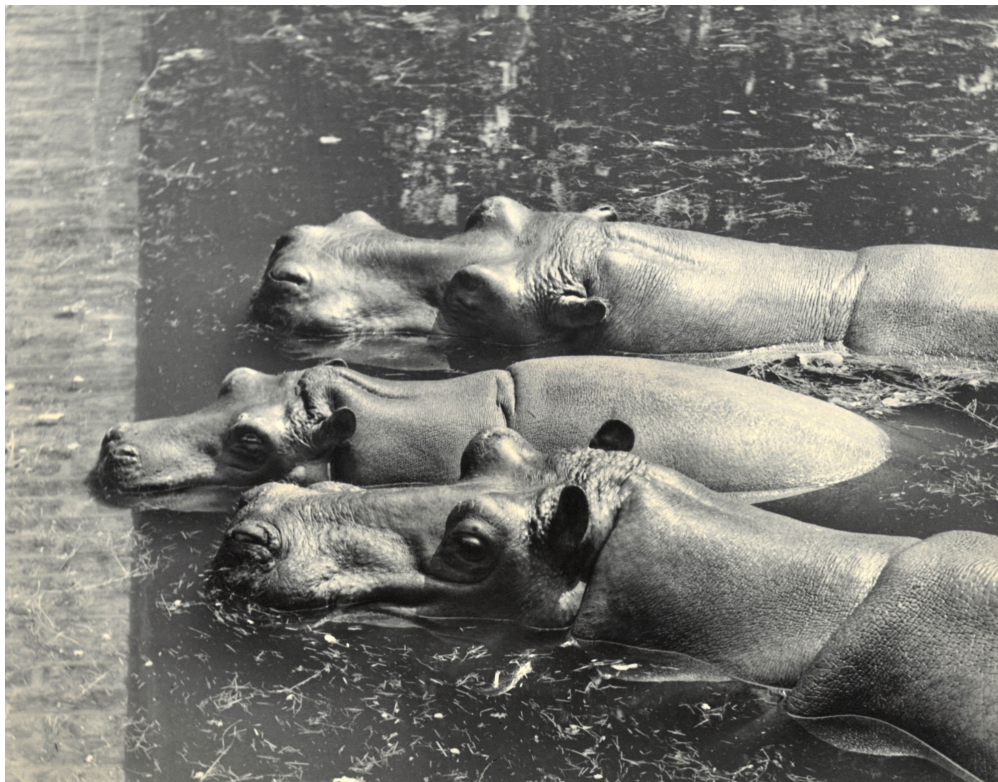
In a press release at the end of 1963, the Tierpark director Heinrich Dathe reported:

“Good networks with zoological gardens all over the world, which have existed for years, have resulted in animal exchanges with zoos in the following countries: Argentina, Brazil, the CSSR, Denmark, France, Indonesia, Israel, Italy, Canada, Cuba, the Netherlands, Austria, Poland, Switzerland, the USSR.”⁸

The zoo's aquarium bred offspring of fish, amphibians, reptiles, and insects specifically for the purpose of exchange with other aquariums, and the polyps from jellyfish breeding in particular were often given away.⁹

Such movements of animals between zoos could serve, on the one hand, to introduce new species into an exhibit and, on the other, to make a particular species a permanent attraction. The exchanged animals were shown as replacements for individuals that had died, or served further breeding efforts. Increasingly, however, it became clear that there was also a need to avoid inbreeding within the animal species kept in zoos. Animals related to each other were given in exchange, and genetically unrelated individuals were taken on.

First, however, awareness for this problem had to emerge. Between 1950 and 1952, hippopotamus calves were twice bred successfully at the Berlin Zoo with the only surviving Berlin hippopotamus, a bull named “Knautschke”. Zoo director Katharina Heinroth and her Leipzig colleague Karl Max Schneider had arranged a breeding exchange. The Leipzig hippopotamus cow “Grete” came to Berlin for the purpose of breeding. The first male offspring went to Leipzig, the second, female hippo calf “Bulette” stayed in Berlin. Together they bred further young, among others the calf “Jette”.¹⁰ That this constituted a clear case of inbreeding does not seem to have posed a problem for the directors at the time.

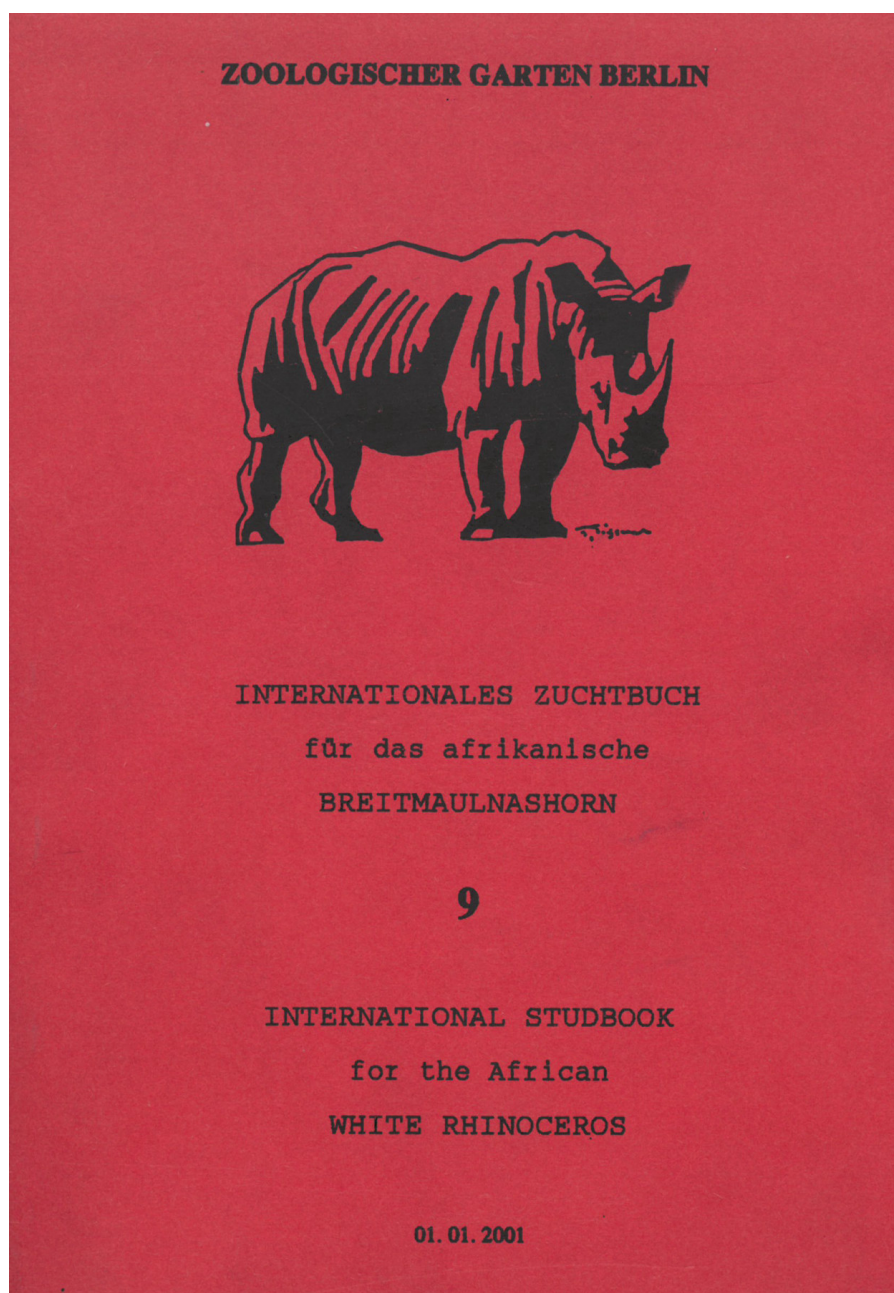


The hippos “Knautschke” (bottom), the young animal “Jette” (middle) and “Bulette” (top), around 1959. (AZGB, image: Hoppe. All rights reserved.)

However, the understanding of this changed over time, as did the nature of the exchanges – which leads to the second context of breeding in zoos. From the first successful instances of conservation breeding by zoos, those of the European bison and Przewalski’s horses,¹¹ zoos had planned breeding programmes to serve species conservation more broadly – for example, the breeding and reintroduction of the Alpine ibex and the bearded vulture, which were achieved by the joint efforts of international zoos. But it was, to a great extent, the restrictions on trade imposed by the Washington Convention that led to the planned initiatives for joint breeding co-operations supported by many zoos which followed in the 1980s. Since zoos could now no longer take new

animals from the wild, and the wildlife trade had virtually ceased, breeding became the dominant source of zoo animals. Trade continued, but now genetic diversity within the zoo population was to be maintained at all costs.

The means for achieving this were so-called studbooks. These had their predecessors in horse breeding, but their principle had been adapted by zoos in 1923. In that year, the studbook for the European bison became the first such animal register. The studbook-keeper coordinated the transfer of animals in human care listed in the studbook, for the purpose of breeding and maintaining genetic diversity in zoo populations. Today, studbooks may also contain recommendations for improving husbandry conditions. Studbooks were gradually introduced for endangered species and those it was prohibited to trade in. For a long time, the Berlin Zoo kept, among others, the studbook for the white rhinoceros, and the Berlin Tierpark kept those for the Vietnamese Sika deer and the so-called Heck Cattle that resemble the extinct aurochs.



Title page of the studbook for the white rhinoceros kept at the Berlin Zoological Garden, 2001. (Zoo Berlin)

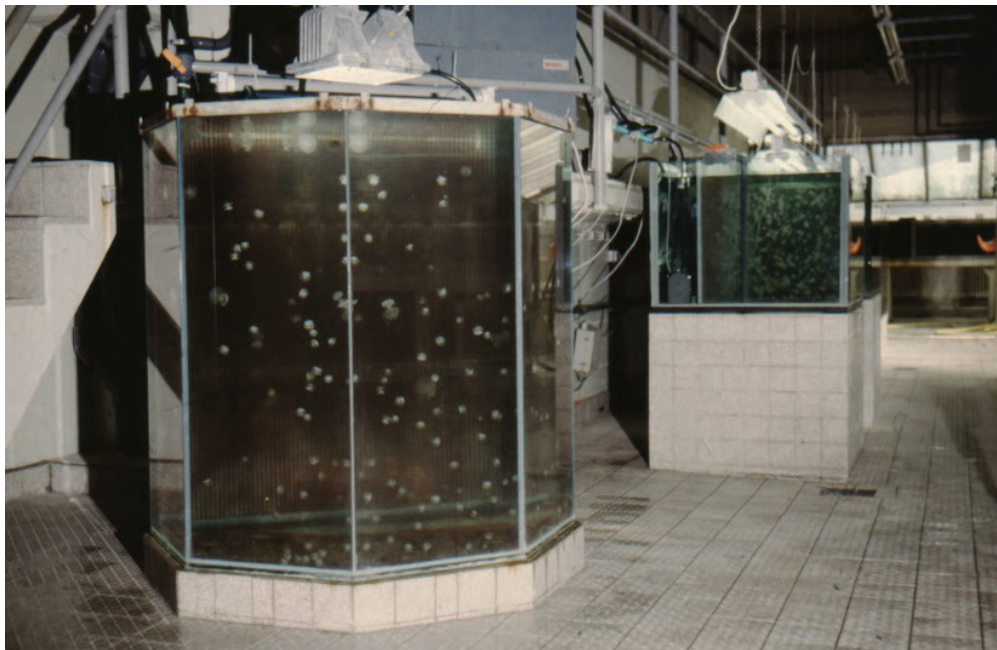
Today, the internet-based information system (Species360) facilitates the work of studbook coordinators and has made printed studbooks largely obsolete.

Especially in the case of endangered species, zoos engaging in an exchange must scrupulously observe the regulations of the Convention on International Trade in Endangered Species. Nevertheless, for the Tierpark and the Zoo Berlin, the exchange of animals between member institutions of the German Association of Zoological Gardens, as well as between European and worldwide zoo associations remains an important source of new animals.

This practice of creating a “cross-institutional ‘metacollection’” also affects the institutions involved:

“New (collection-)collectives are created that transcend individual zoos. Zoo animals and zoos are placed in new relations to each other, literally displaced and interconnected in part by means of transfers for breeding purposes, and these new collectives are elaborately regulated.”¹²

In light of the growing body of knowledge on rare animal species, and the increasing success of breeding programmes, zoos and aquariums also began to attempt the breeding of species that had previously been bred in captivity only rarely, or rarely with success – meaning that the attempts resulted in animals with a long lifespan and regular offspring. In the 1990s, the Berlin Aquarium succeeded for the first time in breeding and putting up for permanent display a variety of different jellyfish species. Aquarium staff caught the first specimens of moon jellyfish, which formed the foundation for the breeding efforts, between 1986 and 1989. They were allowed to accompany research vessels of the Oceanography Institute of Kiel University on research voyages for this purpose.¹³



In the late 1990s, the Berlin Aquarium successfully bred jellyfish in these tanks for the first time since the 1930s. (AZGB. All rights reserved.)

Zoos Between Pragmatism, Recreational Enterprise, and Strategies for Species Conservation

The different sources of the animals determine the various acquisition strategies and handling requirements for the institutions in question. These include issues concerning preparation, the logistics around the acquisition, as well as the labour and financial resources required. In addition to the regulatory approvals needed, equipping an independent collecting or trapping expedition requires a major initial financial investment. An animal donated or borrowed for breeding purposes must be housed and maintained. For breeding in zoos, the necessary biological and veterinary know-how must be at hand and, above all, there must be sufficient space. This is needed for larger social groups. This was and is also true when zoos bought or buy live animals. These requirements necessitate further financial resources. Today, it is fair to assume that the animal species, and individual groups of a species, that a zoo chooses to keep are compatible with the institution's larger husbandry, education, exhibition or research strategy.

A glance into the history not only of the Berlin zoos shows that these strategies were and are taken into account, but that a significant portion of the efforts made to acquire animals has often been related to the fact that they are unique and new, or that they are expected to attract great interest from the public. Classic examples of the latter are pandas and animals attractive to the public, such as great apes, elephants, and predators (especially big cats). Animals perceived by visitors as cute or out of the ordinary, such as penguins and meerkats, or giraffes and tapirs also feature.

Their attraction is based on the fact that they resemble us, are enormous, dangerous, or cute, stand upright, or have special features.¹⁴ More on these so-called show animals (Schauwertiere) in Putting Animals on Display.

Ultimately, it seems that over the course of their existence, zoos – including the Berlin Zoo, its Aquarium, and the Tierpark – have been, for the most part, pragmatic in regard to the supply sources of the species and individual animals they keep. Animals have been obtained from all available sources. Being in possession of many animals and making these accessible to visitors has been a primary goal.

In the Tierpark of East Berlin, a huge area of more than 100 hectares was available for animal enclosures and larger herds. The West Berlin Zoo, in its turn, worked to maintain a reputation as the most species-rich zoo in the world. This last was also related to the fact that everything in West Berlin, dependent as the city was on subsidies from the Federal Republic, was inflected by a felt need to legitimate itself. The zoo was a tourist magnet in this city at the front of the Cold War. Until well after the turn of the millennium, pedagogical concerns and species conservation were not at the forefront of considerations driving animal acquisition.

Sandra Nicolodi states that while the “shift toward coordinated inter-zoo breeding of certain endangered species, as practiced today, for instance, in the form of conservation breeding programmes, is not the end product of a straight line of development”, as zoo associations like to present it, “nevertheless, it does

seem to be something new”. Even if, as is apparent, these “offspring breeding efforts” are older.¹⁵

For some years now, it has been possible to identify new tendencies that are changing zoos internationally, in Germany, and in Berlin. Long-term strategic considerations are now taking the place of pragmatism to a greater extent. Increasing criticism of the conditions in zoos, and questions about their future role in natural history education and species conservation *ex situ* (i.e., in zoos through breeding) and *in situ* (in the animals’ original habitats) have led to a move away from earlier zoo directors’ ‘passion for collecting’. Observers now see everywhere a reduction in the number of species kept, in favour of larger enclosures and a focus on so-called flagship species – meaning, “endangered species with a high display value, through whose protection one simultaneously achieves the protection of many other species that share their habitat with them”.¹⁶ These practices are in line with the Conservation Strategy adopted by the World Association of Zoos and Aquariums in 2015.¹⁷ Whether this can induce an effective reorientation of zoos for the future is debatable.¹⁸ For zoos have not quite abandoned pragmatic considerations: Breeding programmes, especially of display-worthy animals, remain important to ensure the continued presence of the favourites that as-yet plentiful audiences keep coming to the zoo to see. Perhaps these, in their turn, will generate the resources needed to achieve new strategic goals?

Footnotes

1. Actien-Verein des Zoologischen Gartens Berlin. *Geschäftsbericht für das Jahr 1907*. Berlin: 1908.↵
2. For an overview of the imports of non-native animal species cf. Lothar Dittrich. “Der Import von Wildtieren nach Europa: Einführen von der frühen Neuzeit bis zur Mitte des 20. Jahrhunderts”. In *Tiere unterwegs: Historisches und Aktuelles über Tiererwerb und Tiertransporte*, Helmut Pechlaner, Dagmar Schratler, and Gerhard Heindl (eds.). Wien: Braumüller, 2007: 1-64.↵
3. Heinz-Georg Klös. “Tierfänger und Großtierhändler: Erinnerungen eines alten Tiergärtners, Teil I”. *Bongo* 34 (2004): 3-42; and Heinz-Georg Klös, .“(…), Teil II”. *Bongo* 35 (2005): 7-42.↵
4. Minutes of meeting of the Commission for Zoos of the GDR (Kommission für Tiergärten der DDR), on 23 and 24 March 1970 in Halle, 16.04.1970, AZGB, O 0/1/18; H. Dathe to the Ministry for Culture of the GDR, 10.12.1974, AZGB, O 0/1/206; Minutes of meeting of the Association of German Zoo Directors, 1962, Archive Tiergarten Schönbrunn (ATGS), Estate W. Fiedler, File “Verband Deutscher Zoodirektoren”, Nr. 2.↵
5. Ludwig Heck. “Heiter-ernste Erinnerungen an Tiergärtner”. *Der Zoologische Garten* 12, Nr. 3/4 (1930): 228-38.↵
6. Annual reports of the stock association of the Zoological Garden of Berlin for 1919-1924.↵
7. Examples of lists can be found in various places in the AZGB, for example, on the part of the Tierpark in O 0/1/5, O 1/2/138; the inventory series on the Zoo’s offerings and requests between 1947 and 1957 under O 0/1/2/42 ff.↵
8. Tierpark Berlin, Press release Nr. 104/63, 28.12.1963, AZGB O 0/1/307.↵
9. Rainer Kaiser. “Wie kommen die Tiere aus allen Teilen der Welt in das Zoo-Aquarium?” In *Picassofisch und Kompassqualle: 100 Jahre Zoo-Aquarium Berlin*, Bernhard Blaszkiewitz (ed.), Berlin: Lehmanns, 2013: 214-239, 229, 232-235.↵
10. Katharina Heinroth. *Mit Faltern begann’s: Mein Leben mit Tieren in Breslau, München und Berlin*. München: Kindler, 1979: 174-175; Clemens Maier-Wolthausen. *Hauptstadt der Tiere: Die Geschichte des ältesten deutschen Zoos*. Andreas Knieriem (ed.). Berlin: Ch. Links Verlag, 2019: 151, 153; Bernhard Blaszkiewitz. *Knautschke, Knut & Co: Die Lieblingstiere der Berliner aus Tierpark und Zoo*. Berlin: Lehmanns Media, 2009: 11-18.↵
11. Cf. Raf de Bont. “Extinct in the Wild: Finding a Place for the European Bison 1919-1952”. In *Spatializing the History of Ecology: Sites, Journeys, Mappings*, Raf de Bont and Jens Lachmund (eds.). New York: Routledge, 2017; Jan Bouman. “The History of Breeding the Przewalski Horse in Captivity”. In *Breeding Przewalski Horses in Captivity for Release into the Wild*, Jan Bouman, Inge Bouman, and Annette Groeneveld (eds.). Rotterdam: Foundation for the Preservation and Protection of the Przewalski Horse, 1982: 17-64.↵
12. Sandra Nicolodi. “Nachzucht: Eine relativ neue Sammelpraxis Zoologischer Gärten”. *Traverse* 19, Nr. 3 (2012): 91-105, 100.↵
13. Kaiser, 2013: 221.↵
14. Jürg Meier. *Handbuch Zoo: Moderne Tiergartenbiologie*. Bern: Haupt Verlag, 2009: 115-120.↵
15. Nicolodi, 2012: 91, 96.↵
16. Meier, 2009: 121.↵
17. Alejandro Grajal, Jerry F. Luebke, and Lisa-Anne DeGregoria Kelly. “Why Zoos Have Animals: Exploring the Complex Pathway from Experiencing Animals to Pro-environmental Behaviors”. In *The Ark and Beyond: The Evolution of Zoo and Aquarium Conservation*, Ben A. Minter, Jane Maienschein, James P. Collins, and George B. Rabb (eds.). Chicago: University of Chicago Press, 2018: 192-203.↵
18. Cf. Manfred Niekisch and Volker Sommer. “Artenschutz durch Zoos: Zwei Perspektiven”. *Aus Politik und Zeitgeschichte* 71, Nr. 9 (2021): 31-38.↵