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## Introduction

Timmy the gorilla was born in Cameroon in 1959. He was captured in 1960, barely a year old, by gorilla hunter Dr. Deets Pickett.<sup>1</sup> The *New York Times* interviewed Pickett about his transfer of eight more baby gorillas to the United States that same year. He described the journey as a harrowing ordeal, with the infant gorillas arriving “half-dead from cold, respiratory ailments and lack of motherly love.”<sup>2</sup> Pickett continues: “I got eight baby gorillas in Yaoundé, Cameroon. . . . The youngest were grieving for their mothers, who had been killed by the natives. At Douala on the seacoast . . . all collapsed with heatstroke and one died. At Paris, where it was cold, two more died of pneumonia. When we arrived in New York, five were unconscious, Hibou nearly dead.”<sup>3</sup> For the next flight from New York to St. Louis, “two of the baby gorillas rode with Dr. Pickett in the cabin . . . the other two, moaning and grumbling, were carried, crated, in the cargo hold.”<sup>4</sup> Fortunate to survive capture and transfer to the United States, Timmy was sold to the Memphis Zoo for approximately five thousand dollars.<sup>5</sup> Six years later, Timmy was sold and transferred from Memphis to Cleveland Metroparks Zoo.<sup>6</sup>

Timmy had very little social experience and was quite awkward around other gorillas, spending most of his time in a solitary enclosure. Over the years, he showed little interest in females, despite two introductions arranged by zookeepers. By 1990, the zoo decided to provide Timmy with an experienced companion, and female gorilla Kribe-Kate was transferred from the Kansas City Zoo. Kate

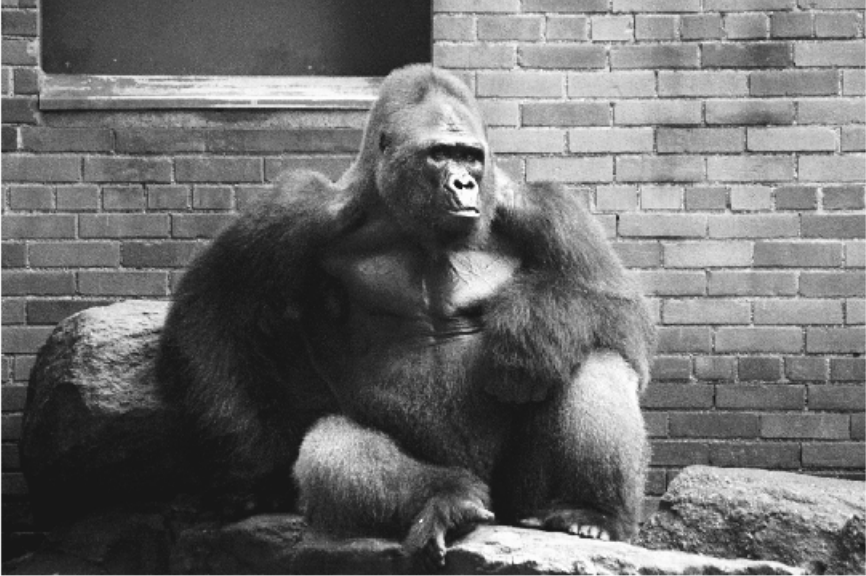
was chosen specifically because she was “very savvy in gorilla social behavior. She knew exactly how to approach him.”<sup>7</sup>

Soon, Timmy’s love for gorilla Kate became the talk of Cleveland.<sup>8</sup> But despite their “robust sexual activities,”<sup>9</sup> the pair could not produce offspring.<sup>10</sup> The Association of Zoos and Aquariums (AZA) stepped in and suggested that, given Timmy’s newfound sexual interest and Kate’s lack of fecundity, Timmy should be transferred to the Bronx Zoo in New York City.<sup>11</sup> There he would have access to four females and hopefully produce the offspring that would help ensure the continued existence of his species.<sup>12</sup> Les Fisher, then chairman of the Gorilla Species Survival Plan® (SSP), justified the move: “We have to be careful to keep the breeding stock healthy. . . . If we’re not careful, we’ll end up with father gorillas breeding with daughters, and that would hurt the breed. That’s why we were happy when we learned that Timmy, a handsome specimen born in the wild, could be used to breed.”<sup>13</sup>

The decision to move Timmy sparked a strong reaction by Cleveland residents. Many picketed outside the zoo, carrying signs saying “Keep Timmy Here,”<sup>14</sup> and more than 1,500 people signed a petition to keep Timmy in Cleveland.<sup>15</sup> A letter, purportedly written by Timmy, was published in the local newspaper. In the letter, Timmy professed his love for Kate and his fear at being moved to the Bronx.<sup>16</sup> Animal rights groups concerned with Timmy’s emotional welfare took their protests to court, suing Cleveland Metroparks Zoo and seeking a restraining order to keep Timmy in Cleveland with Kate.<sup>17</sup> The suit failed. The federal judge found that the concern over humane treatment in transit was adequately addressed by the zoo’s compliance with the law.

One hour after the court decided in favor of the zoo, Timmy left for the Bronx, accompanied by two veterinarians, two keepers, and the zoo director.<sup>18</sup> This move was significantly smoother than the transfer from Cameroon. Cleveland Zoo spokeswoman Sue Allen was quoted, “He had a good trip. He ate some grapes, drank some Gatorade and was awake most of the time. When he was moved, he seemed curious about his environment, but seemed to be doing well.”<sup>19</sup>

Upon his arrival at the Bronx Zoo, Timmy underwent a gradual protocol of quarantine and introduction to females. Dan Wharton, then Bronx Zoo curator and Gorilla SSP coordinator, explained the art of gorilla matchmaking: “We will slowly introduce him to a female by letting them see one another, though they will be separated. When he is ready to touch her, we will proceed



*Figure 1.* Timmy the Gorilla at age thirty-three, Bronx Zoo, 1992. His keeper says, “I particularly like this sitting pose, where Timmy occupies one of the older Bronx Zoo yards. It shows him outside, how he’d typically sit at the doorway and watch over the gorillas in his group” (Roby Elsner, Miami Zoo manager of primates, formerly supervisor of gorillas, Louisville Zoo). Photo courtesy of Tom and Jan Parkes.

to that. It will go as slow or as fast as Timmy wishes. We have no intention of rushing him along.”<sup>20</sup>

Less than two years following his arrival at the Bronx Zoo, Timmy produced his first offspring. Over the next several years, Timmy bred prolifically.<sup>21</sup> His twelve surviving offspring, including a set of twins, were all born at the Bronx Zoo. They currently reside in the Bronx, Boston, Omaha, and Detroit zoos. Two of Timmy’s grandchildren, M’Domo and Sia, are still in the Bronx, while a third, Zola, has been moved to Calgary.<sup>22</sup>

As a result of Timmy’s robust reproduction, he soon “went from being a totally unrepresented founder into one that was slightly overrepresented.”<sup>23</sup> Dan Wharton explained that “keeping him in a reproductive group, from a genetic management point of view, did not make sense.”<sup>24</sup> Additionally, Timmy’s large troop at the Bronx had begun to overwhelm him in his old age. The Gorilla SSP

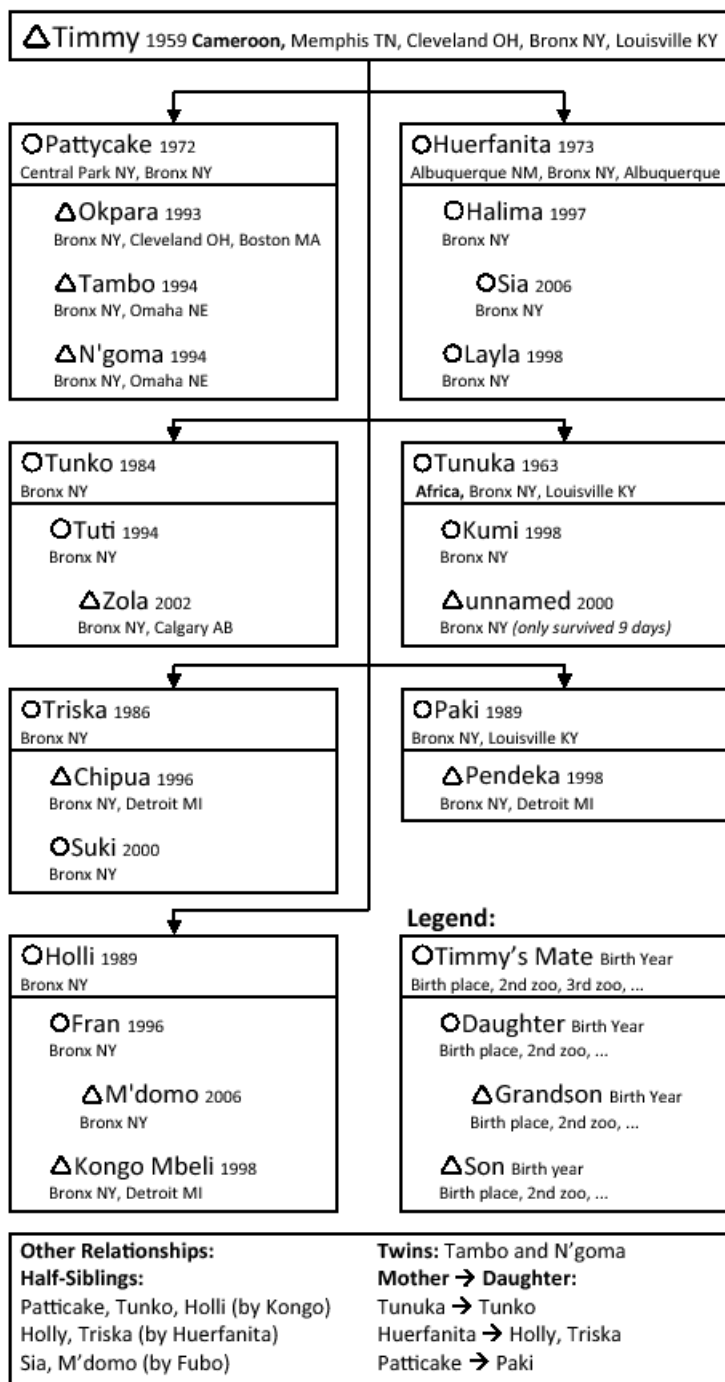


Figure 2. Timmy's family tree. Illustration by author; compiled from data in Thomas Wilms and Undine Bender, *International Studbook for the Western Lowland Gorilla*.

program thus recommended another transfer for Timmy—this time to an institution with nonreproducing females. Wharton suggested, “This time from a health point of view, it made sense to have Timmy in a group with older females.”<sup>25</sup> Therefore, Timmy was moved to Louisville Zoo’s Gorilla Forest in 2004, along with two females from his social group, Paki and Tunuka.<sup>26</sup> At the Gorilla Forest, Timmy led a group of three females: Paki, Mia Moja, and Kweli. Timmy was “laid-back and well-liked by females”<sup>27</sup> and, in his old age, helped the three females form a strong bond. The females would need this strong bond before joining Mshindi, a rambunctious male silverback that the AZA hoped to breed with Mia Moja.<sup>28</sup>

When he celebrated his fiftieth birthday in 2009, Timmy was the oldest male gorilla in North America.<sup>29</sup> As a birthday gift, the Louisville Zoo offered five-dollar discounts to families that donated old cell phones for recycling. Cell phone production requires the mining of coltan, which threatens gorilla habitat in Congo.<sup>30</sup> Also in observance of Timmy’s birthday, Louisville’s mayor officially declared January 17 as “Timmy the Gorilla Day.”<sup>31</sup>

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Timmy’s story parallels the dramatic transformations undertaken by North American zoos and aquariums over the last several decades.<sup>32</sup> While early zoos and menageries were dedicated largely to entertaining the public, modern zoos emphasize conservation and education as their central institutional missions. Zoo animals, once displayed in concrete and metal cages, are now presented in exhibits designed to resemble their natural habitats. Zoogoers are also meant to feel immersed in the zoo’s naturalistic environment, thereby forgetting that they are still in the midst of what some of the interviewees have described as “the dust and grime” of the city.<sup>33</sup> Moreover, the human stance of domination and control toward animals has been redefined as one of care and stewardship.

This new emphasis on conservation and care has ushered in a paradigmatic shift in management. Whereas animals used to be managed by individual zoos with no relation to each other, the project of governing zoo animals is becoming increasingly cooperative, collective, and global. Advancements in monitoring and database management systems enable new configurations of information about animals and new possibilities for collaborative networks between distant zoos. The AZA, the zoo industry’s central organization, claims that “today’s accredited

zoos and aquariums are not the institutions of even two decades ago. Not only do they connect people with animals, they've transcended into leaders in conservation, education, and science."<sup>34</sup>

Timmy is a primate, and in this sense his story blurs the divide between humans and other animals.<sup>35</sup> At the same time, Timmy's story is also the story of all zoo animals, and, as such, it illuminates several aspects of how North American zoos govern captive animals. First, it demonstrates how zoos naturalize their spaces, classify their animals, and produce an experience of seeing for their human visitors. Second, Timmy's story highlights the everyday processes by which zoo animals are named, identified, and recorded within the zoo world and registered in global databases and networks. Third, Timmy's story exemplifies how animals are translated into law, and how law manifests itself in the material world of animal spaces and bodies. Finally, it calls attention to the uniqueness of the zoo's collective form of management and especially to the importance of captive reproduction for this management.<sup>36</sup> Throughout, Timmy's story illuminates the purported role of zoos as the animals' exclusive caregivers.

### Naturalizing, Classifying, and Seeing Timmy

Timmy's story illuminates not only *why* zoo animals are transferred between zoos and *how* zoos reach such decisions to transfer their animals, but also the deeper assumptions that weigh into these decisions. The most crucial assumption underlying the entire institution of captivity is the classification of zoo animals as wild and therefore as representatives of their unconfined conspecifics. Take this assumption away, and you take away the *raison d'être* of the zoo. According to zoo personnel, there are two reasons to hold Timmy in captivity and to work so hard toward maintaining a viable captive population of his species. First, Timmy is of interest to zoo visitors precisely because of his perceived wildness, here displayed under captive and controlled conditions; and second, keeping Timmy and his wildness in captivity contributes to the conservation of gorillas and their habitats in nature.

Throughout his captive life, Timmy has lived at the heart of American cities. Yet over the years, his exhibit spaces looked more and more like oases of nature. Carefully designed to immerse zoogoers in nature, zoos increasingly provide an escape for their visitors by transplanting them from the urban space in which

they live into a completely different geographical space that is natural and wild.<sup>37</sup> “Our guests come here to get that respite from the urban environment,” says Susan Chin, vice president of planning and design and chief architect of the Bronx Zoo.<sup>38</sup> “You have places to go where you can see trees and squirrels and ducks and muskrats. It’s an oasis. It’s Eden. It’s a place where you can get away from the dust, the dirt, the grime, the buildings.”

Immersion is currently the *bon ton* of zoo design. Through immersing their visitors in nature, zoos attempt to instruct them to care for all of nature.<sup>39</sup> The Congo exhibit at the Bronx Zoo—Timmy’s home from 1991 to 2004—illustrates how the zoo’s education of the public toward conservation is made into a participatory experience. Pat Thomas, general curator of the Bronx Zoo, describes an additional admission fee collected from each visitor for conservation: “The visitor could essentially pick whatever project he wants and that’s where his money would go.”<sup>40</sup> In the Congo exhibit, “there is also a little drop box, [and] if people wanted to put in extra money they could. You wouldn’t expect that there would be a whole lot of money in that drop box. But after visitors see our gorillas, literally inches away from them, I was impressed [by] how much money people would put in that drop box. So, at least in the short term, those animals are inspiring people to care, to throw in an extra dollar or two.”<sup>41</sup>

The award-winning Gorilla Forest exhibit at the Louisville Zoo<sup>42</sup>—Timmy’s home from 2004—was similarly designed to immerse zoogoers in an experience of the Congo rainforest and to connect that experience with knowledge of habitat destruction. According to the zoo’s website, “This multi-faceted exhibit immerses you, the visitor, into the world of gorillas . . . [where] you are in the gorilla’s realm.”<sup>43</sup> Unique design features use illusions to bridge the audio and tactile barriers between zoogoers and zoo animals. Visitors enter a two-story atrium constructed of glass walls for unobstructed viewing of the gorillas. The gorillas can press a button to broadcast gorilla sounds into the public atrium. As a result, “the public becomes part of the troop, being surrounded by the gorillas in a space that is detailed in a similar manner as the exhibit space.”<sup>44</sup> Exhibit designer Jon Coe explains: “The ropes inside the gorilla rooms actually extend out above the public space where they support a cargo net filled with straw, like a nest. So when the gorillas move the rope network, sometimes straw shakes down on the public. But the big idea is to try to make the gorilla areas and public areas indistinguishable from each other, all one family.”<sup>45</sup> Both the role of zoo design to immerse the

public in nature and this design's contribution to the project of governing animals are discussed in Chapter 1.

Zoos not only naturalize their spaces; they also naturalize their animals through classifying them as wild. In Timmy's case, his classification as a wild animal and the resulting perceptions about his gorilla nature were used to justify his movements through American zoos. Because he was born in the wild, his genotype was deemed desirable for breeding captive gorillas. In the wild, he would naturally lead and breed with a troop of several females. Since this was impossible in Cleveland, he was moved to the Bronx. In the words of longtime gorilla keeper Roby Elsner, "So we knew that if the animal himself had a say in the situation he would vote for being moved to a group that had multiple females because that's really the normal social group for these animals."<sup>46</sup> While on the one hand, Timmy the gorilla is imagined here as voting for his own move as if he were human, on the other hand he maintains his natural identity as a gorilla that is supposed to live in a multi-female group rather than alone or in a pair. The state of this animal in the wild is thereby invoked to justify the administrative decision to move its conspecific from one zoo to another. The process of naturalizing the captive animal—namely, of perceiving this animal as wild—conflates the notions of "wild" and "captive" to the point that the second becomes a subset of the first. Charismatic animals like Timmy are naturalized into becoming ambassadors for their species, encouraging zoogoers to care about what are portrayed as their counterparts in the wild. The methods and implications of classifying zoo animals as both wild and captive are explored in Chapter 2.

Zoo professionals strongly believe that by seeing zoo animals like Timmy in a naturalistic setting, zoogoers will alter not only their beliefs about the importance of nature but also their everyday consumer choices. They believe that through looking at animals, the human public will be taught to care about these animals and, by extension, about the animals' body doubles in the wild and therefore about nature at large. Chapter 3 further explores how zoos craft the experience of seeing animals so as to transform the beliefs and behaviors of zoogoers. Yet alongside its visible aspects, the zoo also contains numerous invisible spaces, such as holding areas and veterinary facilities, which constitute the zoo's backstage. Away from the public eye, these spaces are carefully designed to enable routine care for the animals, including quarantine, veterinary examination, food preparation, effective cleaning, and video monitoring.



## Naming, Recording, and Registering Timmy

Alongside naturalizing, classifying, and seeing zoos and their animals, various technologies of naming and identification function in the project of governing captive animals. The name that the public affiliates with this animal is “Timmy,” or his official studbook name: Tiny Tim. Lately, the practice of assigning gorillas with common human Western names, such as Timmy or Helen, the oldest male and female gorillas in captivity, has gone out of fashion. Timmy’s younger cohabitants at Louisville have African-sounding names to associate them with wild habitat, even though most of them have been born and raised in American cities. In Swahili, a lingua franca in Africa, Mshindi means champion, Kweli means truth, and Mia Moja means one hundred.<sup>47</sup>

In addition to his common name—or, in zoo terminology, his “house” name—Timmy has been assigned several institutional number sequences. Timmy’s number in both the North American Studbook for the Western Lowland Gorilla and the International Studbook for the Western Lowland Gorilla is 282. Timmy also has an institutional identity number from each zoo: his Cleveland Zoo number is 661201, his Bronx Zoo number is 911329, and his Louisville Zoo number is 102476.<sup>48</sup> These numbers are only used for in-house record keeping at each facility. Another form of identification, this time a global accession number that can be accessed by all accredited zoos worldwide, was also configured for Timmy as part of the newly introduced database: the Zoological Information Management System (ZIMS). Additionally, a warehouse-assigned number that can be read by a hand-held Radio Frequency Identification device (RFID) was inscribed onto a microchip and inserted under Timmy’s skin. This last naming mechanism has been used to ensure that a correct link is made between Timmy’s name and his body.

Finally, Timmy also has a scientific name: *Gorilla gorilla gorilla* (incidentally, *gorilla* in ancient Carthaginian means “hairy person”). This clarifies that Timmy belongs to the subspecies of Western lowland gorilla. Furthermore, it distinguishes Timmy from three other gorilla subspecies and associates him with the wild population of approximately 110,500 Western lowland gorillas, almost 80 percent of which are in the Republic of the Congo and Gabon.<sup>49</sup>

In addition to his name, birth, and location, an array of information about Timmy is continuously recorded and entered into institutional and central database systems. Each captive animal has its own institutional record, referred to in the zoo world as a specimen report. The individual zoos that have held Timmy

manage files that contain all of Timmy's information, as routinely documented by his zookeepers. Here, for example, is a sample of Timmy's specimen report from his first day in Louisville:

25 May 2004 Behavior note

0715 Timmy, Tunuka, and Paki okay upon initial check.

0830 Jane fed citrus and mush to 1.2. Timmy ate in 1, Tunuka ate in 2 and Paki ate in 3. Timmy and Tunuka both left then returned to the stalls in front of their food bowls. Timmy did not eat his mush cones.

0915 Gave Tunuka her birth control pill in part of a banana and each of the 1.2 received a banana for allowing the shift doors to close to stalls 2 & 3 for cleaning. The stalls were very wet and there was normal looking poopos in normal amounts. The uncooked asparagus, leafeater biscuits and uncooked yellow squash were left untouched. Half of the HiPro biscuits were left. Most of the cooked asparagus had been eaten as well as all of the cooked squash, kale, escarole, iceberg and rice cakes.

1330 Roby attempted to hand feed individuals cooked carrots. . . . Toward the end of hand feeding, Timmy stood up and stiff stanced at Roby with diverted eye glances. He soon calmed, however.<sup>50</sup>

Another important source of information about Timmy—and almost every other captive animal, for that matter—is his MedARKS (Medical Animal Records Keeping System) report. Timmy's medical life fills over seven hundred report pages written in overwhelming detail. Here, for example, is a small sample of Timmy's medical report, again from his first days at the Louisville Zoo:

10.Jun.2004

Problem: quarantine;

anthelmintic treatment; blood collection; blood pressure measurement (indirect); cornea neovascularization—left eye (Confirmed); corneal opacity—left eye (Confirmed); culture—rectum; caries—right lower molar (Confirmed); dental extraction—right lower premolar; dental scaling—ultrasonic; ECG; endodontic procedure—right lower canine; enlargement/hypertrophy—left ventricle

(Confirmed);OPHTHALMIC EXAM; QUARANTINE EXAMINATION; phthisis bulbi—left eye (Confirmed); radiograph; hyperferremi (Confirmed); increased chemistry result—iron saturation (Confirmed); tuberculin testing—left eyelid; URINE COLLECTION; vaccination—measles; vaccination—Ipol; TRACHEAL WASH<sup>51</sup>

Timmy's specimen and MedARKS reports both reflect the copious amount of data that zoos produce about captive animals through their lifetime.

Alongside Timmy's individual institutional and medical reports, zoos also manage databases about the other captive members of his species. However, this

type of information management is relevant only to those animals that are managed collectively by zoos, which are the minority of captive animals.<sup>52</sup> The North American Studbook for the Western Lowland Gorilla consists of the following specific data field entries for all managed gorillas in North America: “Stud #, Sex, Birth Date, Sire, Dam, Location, Date, Local ID, Event, Rearing, Name.”<sup>53</sup> As the most global list of captive gorillas, the International Studbook for the Western Lowland Gorilla includes all the gorillas of the North American Studbook, as well as gorillas managed by participating zoos in Australia, Asia, Africa, Europe, the Middle East, and South and Central America. In 2010, for example, 856 living captive gorillas were recorded in the studbook, including 351 in North American zoos and 408 in European zoos.<sup>54</sup>

The project of naming, recording, and documenting captive animals is further explored in Chapters 4 and 5. Whereas Chapter 4 depicts the various actions that establish zoo records—naming, listing, identifying, recording, and tracking zoo animals—Chapter 5 focuses on the central bureaucrat who executes the informational and legal routines practiced by zoos: the zoo registrar.

### Regulating Timmy

Timmy’s story demonstrates both the complexity and the centrality of law to the everyday operations of contemporary zoos—and by law, I mean everything from federal statutes and case law through departmental regulations, city ordinances, and industry standards as well as routines and practices that are not codified into written rules and standards. Each of Timmy’s transfers from zoo to zoo was prescribed by numerous legal maneuvers. First, the relevant zoos had to sign a loan agreement. The initial two-way loan between Timmy’s owner, Cleveland Metroparks Zoo, and the Bronx Zoo later became a three-way loan agreement between Cleveland, Bronx, and Louisville. This agreement determined the division of responsibilities between the three zoos, as well as the ownership of any offspring: “Owner of the female will be the owner of the 3rd, 6th, 9th, and so on viable offspring; Owner of the male will be the owner of the 2nd, 5th, 8th, and so on viable offspring; [and] Receiving institution will be the owner of the 1st, 4th, 7th, and so on viable offspring.”<sup>55</sup> Although the notion of ownership is said to be much less relevant under today’s collective management system, it is still the dominant language of formal communications between zoos.

Timmy's physical transfers between zoos were also subject to heavy regulation by a range of official bodies, including the International Air Transport Association (IATA) and AZA, among many others. IATA's Live Animal Regulations specify every inch of the container used for shipping gorillas, including its sides, floor, roof, door, ventilation, and food and water containers. The front of the container, to quote one example,

must consist of strong iron bars, spaced in such a manner that the animal cannot push its arms through the bars. The bars must have a sheet of welded mesh fixed at a distance of 75 cm in front of them. A wooden shutter with slots or holes for ventilation must cover the whole front in order to reduce the amount of light inside the container as well as to reduce the disturbance to the animal and to protect the handling personnel.<sup>56</sup>

AZA's Standardized Animal Care Guidelines for Gorillas establish an additional set of requirements for gorilla transfers. For example, the guidelines establish a requirement of pre-shipment physical exam and post-shipment quarantine of thirty to sixty days, maintaining that "before clearance, gorillas need 2 negative tuberculin tests, 3 negative fecal examinations [and] updated vaccinations."<sup>57</sup>

Despite the Cleveland and Bronx Zoos' careful compliance with all the above requirements, zoo critics framed Timmy's move as a form of "bad management" performed by a coldhearted and overly scientific zoo community. They appealed to the federal court system to prevent the move. "It was 6 A.M. on Halloween of 1991, and all of us were in the federal court with our attorneys," Cleveland Metroparks Zoo director Steve Taylor described in an interview.<sup>58</sup> Dan Wharton, the Bronx Zoo's curator at the time, explained that the U.S. District Court judge for the Northern District of Ohio saw "no point of relief under the law." This, Wharton said, was "because all laws were being followed in this move, which is of course how the zoo profession always operates. So the case was dismissed and the animal moved the next morning, and that was that."<sup>59</sup> This judicial decision "set a precedent that zoos can send animals from institution to institution," thereby affirming and legitimizing the collective work of North American zoos for years to come.<sup>60</sup>

These snapshots from Timmy's legal life are illustrative of the materiality and immediacy of law beyond the books. Indeed, as much as they are two-dimensional inscriptions, laws are also embodied in the materiality of containers, in the realities of tuberculin tests, in the possibilities of animal transfers between zoos, and—most essentially, perhaps—in the viability of Timmy's offspring. The detailed project of zoo laws is the focus of Chapter 6.

## The Species Survival Plan: Collectively Reproducing Timmy

A Species Survival Plan, or SSP, dictated Timmy's various moves and reproduction throughout his life. The SSP and its recommendations are at the heart of a sophisticated AZA administration that was created in the early 1980s to better manage selected zoo animal populations. The Gorilla SSP was one of the first of what are now over five hundred SSPs, each managing the breeding and transfers of a species "to maintain a healthy and self-sustaining population that is both genetically diverse and demographically stable."<sup>61</sup> Every SSP maintains a studbook and a breeding and transfer plan—both under the guidance of one of forty-six Taxon Advisory Groups (TAGs). The Ape TAG, for example, oversees the Gorilla SSP along with SSPs for bonobos, chimpanzees, gibbons, and orangutans. AZA's Wildlife Conservation and Management Committee and its Population Management Center oversee the operations of the various animal programs, effectively administering what zoo professionals often refer to as the science of small population management.

Gorillas were a feature of public display in North American zoos as early as 1897, but did not successfully breed in captivity until 1956. With the first captive-born baby gorilla at the Columbus (Ohio) Zoo, the North American regional population of gorillas took its first step toward the sustainable population that it is today.<sup>62</sup> In 2011, the managed gorilla population numbered 342 individuals (165 males, 177 females), distributed among fifty-two AZA zoos.<sup>63</sup> Although these zoos are dispersed throughout the country, they have been collaborating for several decades to produce a detailed life plan for each and every captive gorilla in North America. In 2011, the AZA classified the Gorilla SSP as a "green" program. This means that the population is sustainable demographically for one hundred years or more with a high amount of gene diversity, defined as the measure of genetic variation retained in a specific captive animal population relative to the wild-born population that started the studbook.<sup>64</sup> Green, yellow, and red programs are the codes through which AZA-accredited zoos today evaluate and prioritize their animal species. Under this system, genetics, demography, and space translate into careful recommendations about the animal's life and death.

Dan Wharton clarifies that although the SSP formulates plans for every captive gorilla, not all gorillas receive recommendations to move or breed. In fact, such recommendations refer only to a small subset of the total captive gorilla

population “where an improvement can be made.” In Wharton’s words, “Ideally, you’re always looking to make improvements that you know have some element of a positive outcome on all fronts. That is, it’s good for the animal, it’s good for the institutions involved, it’s good for the program, [and] it’s good for the species. You know, on all levels.”<sup>65</sup> As Timmy’s story suggests, deciding on improvements for a particular animal species requires juggling multiple and often conflicting interests: those of the individual animal and its species both in zoos and in the wild, those of individual institutions, and, finally, those of AZA’s animal programs. Wharton offers a historical perspective on the changes that have occurred in gorilla management:

Keep in mind [that] until the 1960s, very few gorillas had come into captivity, and in the earliest days, none of them had lived a long time. So . . . everybody was working in a major vacuum at that point. . . . But as we get into the 1990s and the 2000s, a lot of the animals from the ‘60s were now old animals, and so we had more of a representational age distribution in the population. So there were a lot of things about managing gorillas in zoos that were becoming more and more evident now that the population in zoos had gradually become larger because of the reproduction that had happened.<sup>66</sup>

Wharton also points out that the changes he describes are the result of the gradual transformation of zoos into conservation institutions. This transformation, he explains, was a reaction to both public opinion and to the dramatic legal developments that occurred at the time, as well as a result of differences in the educational background of zoo professionals themselves.<sup>67</sup>

Indeed, until the 1960s, zoos had very little experience either with older gorillas (gorillas usually did not survive to old age in captivity, and typically lived only until their mid-thirties in the wild) or with gorilla reproduction (when needed, zoos would take gorillas from the wild). Starting in the 1970s, several key legal restrictions on animal purchases came into effect. Most prominently, the protection of gorillas under the Endangered Species Act of 1973 prohibited zoos from obtaining “new blood” from the wild to invigorate their populations. To maximize genetic diversity, then, they needed to figure out a way to make the most of the “living founders” that were already in captivity. Since that time, zoos have been reliant on captive breeding as the primary source of recruitment to their collectively managed populations.<sup>68</sup>

The controversial recommendation to transfer Timmy from Cleveland to the Bronx was thus informed by a relatively experienced SSP team with specialized knowledge about the captive management of gorillas. In light of this experience,

the recommendation was “pretty straightforward,” at least to the zoo professionals involved. Wharton explains that “the Timmy case came out of our interest at that point in the history of the program,” which was “to be sure not to lose the opportunity to get genetic representation from all the animals that were in the populations that were living founders.”<sup>69</sup> A “living founder” is an animal brought from the wild into a zoo and that thereby increases genetic diversity in the zoo’s captive population. Timmy was one of 102 breeding gorilla founders in North America and, as such, the SSP deemed his genes more valuable than those of captive-born gorillas. Even so, after Timmy had sired thirteen offspring, the SSP decided that there were more than enough living representations of his genes and recommended to cease his reproductive endeavors by shifting him to a non-breeding group in a different zoo.<sup>70</sup>

Every year, the Gorilla SSP generates new breeding and transfer recommendations with a two-year projection goal. According to the 2011 North American Breeding and Transfer Plan for Gorillas, “The SSP is recommending 48 breeding pairs in this management plan with the goal of maintaining 360 gorillas in the population. The SSP has planned 27 transfer recommendations: 8 males and 19 females will move between institutions to permit breeding, fulfill institutional requests, build bachelor groups, approximate composition of species-typical mixed-sex groups, and/or socialize individuals.”<sup>71</sup> The system that zoos have developed over the years to collectively manage selected zoo animals is the apex of zoo management, and the focus of Chapter 7.

### **Caring About Timmy: Zoos and Conservation**

The incredible amount of work that zoos undertake to govern captive animals brings up the unavoidable question: Why? The interviewees’ almost unanimous response has been, in one word, *care*.<sup>72</sup> Notions of care, in the way that zoo personnel interpret this term, also underlie Timmy’s story and the project of governing captive animals in North American zoos at large. Steve Wing, curator at Louisville Zoo, observed that Timmy had seen great improvements in gorilla care in his lifetime. “Society has changed, and zoos changed right along with it. Gorillas used to be kept in exhibits with concrete. Now we have . . . exhibits full of mulch for them to live on, natural wood and ropes.”<sup>73</sup> From isolation in individual cells, gorillas are now kept in “species-typical harem groupings and/or all-male groups.”<sup>74</sup> Monumental change can also be seen

between the dangerous manner in which Timmy was transferred to the United States in 1960 and the elaborate care given in his transfers to the Bronx and Louisville zoos.

Caring for a gorilla, especially one of Timmy's old age, entails a range of everyday practices. According to Wharton, the increasing number of gorillas reaching old age in captivity is ample evidence of the many changes that zoo care has undergone in the last few decades. Zoos now collaborate to share best practices in care, including routine physicals, flu vaccines, weight, urine, and other biological sample submissions. Geriatric gorillas receive specialized training, enrichment, and even a modified diet that includes fruit smoothies and, at the Louisville Zoo, a special mush recipe made from Mazuri Primate Browse biscuits, peeled and mashed bananas, Gerber baby cereal, and hot water.<sup>75</sup>

But care for Timmy means more than care for him as an individual animal. It also implies care for the sustainability of his species in zoos, what is often referred to as *ex situ* conservation. *Ex situ* conservation manifests in laws, regulations, and standards that attend to the welfare and well-being of wild animals under a range of administrative processes orchestrated by the AZA. For instance, the AZA offers animal care manuals for ten species—and a dozen additional manuals are currently in progress.<sup>76</sup> These manuals assemble “basic requirements, best practices, and animal care recommendations to maximize capacity for excellence in animal care and welfare.”<sup>77</sup> The draft of the gorilla care manual, to take one example, includes 102 pages of comprehensive instructions for gorilla keeping, including the required temperature, humidity, and illumination of gorilla spaces; the behavioral aspects of typical repertoire, social groups, and training of gorilla groups; and prenatal and neonatal care.<sup>78</sup>

Finally, zoos maintain that through care for Timmy and his species in captivity, they also care for gorillas and their habitats in the wild, what is often referred to as *in situ* conservation. *In situ* conservation programs are required of any institution seeking accreditation by the AZA and are becoming standard practice for North American zoos.<sup>79</sup> Accordingly, the AZA boasts of generating \$130 million in support of conservation projects every year.<sup>80</sup> Zoogoers are also encouraged to participate in conservation. For example, visitors of the Gorilla Forest in Louisville “may donate money to Kentucky's Blanton Forest, the Dian Fossey Gorilla Fund International, or the Bushmeat Crisis Task Force. Contributions exceeded \$5,500 within the first year. Donations have helped fund tracker sala-



ries, training, and equipment for the Tayna Reserve, a community based reserve in the Democratic Republic of the Congo.”<sup>81</sup>

Conservation and care are deeply intertwined in the agenda of contemporary zoos. Indeed, to promote care under the current constraints, zoos must become conservation centers. But at the same time, to become conservation centers, zoos must foster care. In the language of two prominent zoo professionals, “We believe that it is essential for us to foster caring concerns and caring behaviors for animals and nature if we are to stay in business, and if we are to carry out the world conservation strategy of *Caring for the Earth*.”<sup>82</sup> Increasingly, zoos have come to realize that their own survival depends on their ability to forge a stronger link between care and conservation. In the words of the two zoo professionals:

The dilemma for us is obvious; the exotic, the distant, the distinctively different plant and animal species draw people to our institutions, but caring behaviour is most readily expressed for those creatures close at hand and familiar, that might be considered part of the family and certainly part of the neighbourhood. If our institutions are to achieve maximal impact in the conservation of biological diversity globally, we have to help extend the close caring relationships of people and understand the challenges inherent in moving people across what are emotional as well as intellectual bridges to larger and more distant entities.<sup>83</sup>

Evidently, conservation is a murky and contentious term, even among zoo professionals. Does conservation only refer to *in situ* animal populations, or does it also refer to the state of animals in zoos? The AZA repeatedly emphasizes that its mission is not limited to the conservation of *ex situ* populations but that it aims to conserve *in situ* populations as well. Indeed, the title of AZA’s central initiative for breeding zoo animals—Species Survival Plan—already implies a connection between the project of breeding zoo animals and that of saving wildlife. Along these lines, the mission of SSPs is to “oversee the population management of select species within AZA member institutions . . . and to enhance conservation of [these] species in the wild.”<sup>84</sup> With this dual conservation goal in mind, accredited North American zoos see themselves as both virtual and actual mini-ecosystems within which selected animals are collectively managed and cared for.

However, many zoo professionals espouse a narrower definition of conservation. Gorilla SSP coordinator Kristen Lukas is not alone in her belief that “conservation is the protection of wild animals or habitat in the wild, period.”<sup>85</sup> For

Lukas, managing captive animal populations falls under “a population sustainability issue,” which is not and cannot be considered conservation. The conflicts in the zoo world regarding the use of the term conservation—whether it refers to *in situ*, *ex situ*, or both—illuminate the changes that zoos are currently undergoing and the challenges they face today. Conservation, in this respect, refers not only to *in situ* or *ex situ* animal populations, but also to the everyday dilemmas that contemporary zoos face and to their conservation as viable institutions.

The conservation narrative of zoos is also contested by organizations that question the very authority of zoos as exclusive caregivers for captive animals and that criticize zoos’ contribution to the conservation of wild animals. Certain animal protection organizations and individuals have even argued that there is no place for zoos in modern society, that zoos do nothing to address the primary causes of global biodiversity loss, and that most captive-bred animals are not endangered and could not survive in the wild.<sup>86</sup> Who cares more for the zoo animal: pro-zoo or anti-zoo people? Zookeepers or AZA’s animal program coordinators? And how does the zoo care for its captive animals? For animals in the wild?

This battle of care has played out quite clearly in Timmy’s story. To prove their superior care, zoo personnel and animal protectionists both claimed to be the authentic and exclusive spokespersons for Timmy. On the one hand, animal protectionists publicized a letter ostensibly written by Timmy, claiming to know his feelings for Kate; they also hired a lawyer to represent Timmy’s interests. In an interview at Cleveland Metroparks Zoo, this lawyer vowed to see that Timmy received “what is best for him.” “Just look at Timmy,” the lawyer said. “If he is so depressed now, what will happen to him when he is shipped to the Bronx Zoo for the rest of his life?”<sup>87</sup> On the other hand, zoo professionals also claimed to know how Timmy felt about this move. Wharton suggested in this context that “an animal doesn’t know the difference between Cleveland and the Bronx. The animal knows that he went in a truck and the truck vibrated and there were keepers sitting next to him while he was being transported, giving him treats. . . . The concept of being transported approximately 750 miles is not going to be a burden to the animal from an emotional point of view.”<sup>88</sup> Zoo people and animal protectionists alike thus portrayed Timmy as lacking agency, which in turn enabled them to step in as the “expert authorities”<sup>89</sup> over Timmy’s emotional and physical state, in post-Foucauldian terms, or as his exclusive “spokespersons,” in the language of science and technology studies.<sup>90</sup>