

ALSO BY MARINA BELOZERSKAYA

*Luxury Arts of the Renaissance*

*Ancient Greece: Art, Architecture, and History*

*Rethinking the Renaissance:  
Burgundian Arts Across Europe*

(202-c. 84)

THE  
MEDICI GIRAFFE

AND OTHER TALES OF  
EXOTIC ANIMALS AND POWER

MARINA BELOZERSKAYA



LITTLE, BROWN AND COMPANY

*New York Boston London*

2006

B4526988

Copyright © 2006 by Marina Belozerskaya

All rights reserved. No part of this book may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without permission in writing from the publisher, except by a reviewer who may quote brief passages in a review.

Little, Brown and Company  
Hachette Book Group USA  
1271 Avenue of the Americas, New York, NY 10020  
Visit our Web site at [www.HachetteBookGroupUSA.com](http://www.HachetteBookGroupUSA.com)

Copyright acknowledgments appear on page 388.

First Edition: August 2006

Library of Congress Cataloging-in-Publication Data

Belozerskaya, Marina.

The Medici giraffe and other tales of exotic animals and power / Marina Belozerskaya. — 1st ed.

p. cm.

ISBN-13: 978-0-316-52565-7

ISBN-10: 0-316-52565-0

1. Wild animals as pet: — History. 2. Wild animals collecting — History.  
3. Exotic animals — History. 4. Human-animal relationships — History.  
5. Diplomatic gifts — History. I. Title.

SF411.35.B45 2006

636 — dc22

2006009659

10 9 8 7 6 5 4 3 2 1

Q-FF

Printed in the United States of America

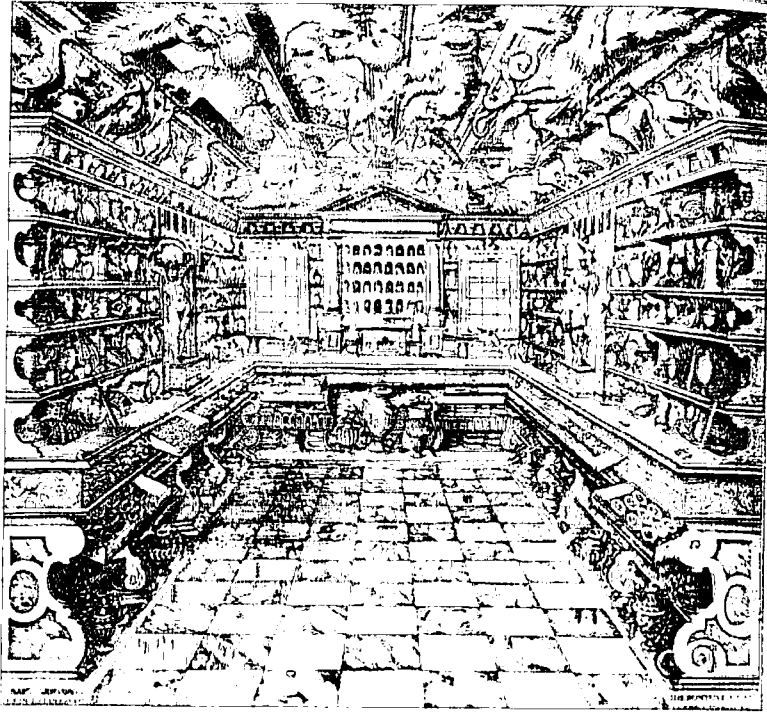
Book design by JoAnne Metsch

TO AUDREY,  
MY FOUR-LEGGED MUSE

~



## RUDOLF II'S EMPIRE OF KNOWLEDGE



[There is] . . . a certain Chinese encyclopedia called the *Heavenly Emporium of Benevolent Knowledge*. In its distant pages it is written that animals are divided into: (a) those that belong to the emperor; (b) embalmed ones; (c) those that are trained; (d) suckling pigs; (e) mermaids; (f) fabulous ones; (g) stray dogs; (h) those that are included in this classification; (i) those that tremble as if they were mad; (j) innumerable ones; (k) those drawn with a very fine camel's-hair brush; (l) etcetera; (m) those that have just broken the flower vase; (n) those that at a distance resemble flies.

JORGE LUIS BORGES,  
"John Wilkins' Analytical Language"

Nothing is more beautiful than to know everything.

PLATO

With little warning, on a cold winter day in early January 1612, the favorite lion of Rudolf II, the Holy Roman Emperor and king of Hungary and Bohemia, died. Rudolf was

the servants, it was also the heraldic beast of Bohemia. Its death could only be an evil omen. Surely it presaged the imminent end of Rudolf himself.

And the omen proved true. On January 20 the emperor expired in his great echoing castle perched on a hill above Prague. Refusing last rites, he died a bitter, disillusioned man, stripped of his crowns and his imperial dignity by his hateful brother Matthias. How did it come to pass that he began his reign as the loftiest monarch of Europe only to end it as a humiliated prisoner in his own home?

Rudolf's detractors said that his preoccupation with nature and alchemy caused him to lose his mind and his reign. Certainly these had been his abiding passions and his therapy for his political and mental ills. With Rudolf's death, his beloved Royal Garden full of exotic plants and his ponds stocked with rare fish were left bereft of their admirer. The foreign beasts in his menagerie and the tropical birds in his aviaries had lost their devoted master and scholar. Rudolf's *Kunstkammer* — a cabinet of wonders composed of four large halls filled to the brim with natural history specimens from around the globe, the most advanced scientific instruments, and works of art by the greatest craftsmen — lay abandoned. This unsurpassed collection, the wonder of its age, had been the soul of this complex and troubled man. He had failed miserably as the ruler of the Holy Roman Empire, but the empire of knowledge he created in his castle ensured his lasting fame.

RUDOLF II CAME into the world on July 18, 1552, the firstborn son of a discordant union between the charismatic and open-minded Holy Roman Emperor Maximilian II Habsburg and his stern and bigoted cousin Maria of Spain, daughter of the former emperor Charles V. Maximilian was a popular ruler who presided over a lively and intellectually vibrant court. He conversed with

his subjects and guests in German, Spanish, Italian, French, Czech, and Latin. A lover of music, he attracted splendid performers into his employ; Orlando di Lasso, one of the greatest composers of polyphony in the late Renaissance, deemed Maximilian's chamber music so wonderful that "neither tongue could describe it nor ears take enough of it."

Fascinated by ancient history and literature and by natural sciences, Maximilian lured to his court the leading practitioners in these fields and encouraged them to conduct further research. When Maximilian's favorite diplomat, Ogier Ghislain de Busbecq, returned from an imperial mission to Constantinople, he brought back for his lord's garden the first tulip to reach Europe. Busbecq also taught young Rudolf about botany and imparted to him an admiration for natural philosophy. Meanwhile, Rudolf fell in love with animals at the two menageries his father had founded near Vienna, at Neugebau and Ebersdorf. The year Rudolf was born, Maximilian was thrilled to acquire an elephant, an exceedingly rare and precious beast. Alas, it died only four months after reaching Vienna, a victim of improper diet and severe climate change. But Rudolf avidly observed and fell under the spell of many other beasts in his father's collection. He would retain his fascination for them all his life and take it to new heights when he grew up.

From his father Rudolf also learned religious tolerance and openness to talent regardless of creed. This was an era of bitter struggles between Catholics and Protestants, battles that would plague Rudolf's reign. The fault line ran right through his own home. Maximilian sympathized with the Protestants, granted them freedom of worship in his territories, and worked for reform in the Catholic Church, including letting priests marry. But his progressive efforts were thwarted by the opposition of the militantly Catholic Spanish royal house to which his wife, Maria, belonged. Maria was a staunch Roman Catholic who despised her husband's Protestant leanings. Fearful for her children's souls at the liberal Viennese court, and more strong-willed than her

husband, she insisted that Rudolf and his younger brother Ernest be dispatched to Spain, to be educated in the true faith and in the dignities of their exalted rank by her brother Philip II.

And so, in 1563, eleven-year-old Rudolf and ten-year-old Ernest, his favorite brother, were sent away from Vienna to spend the next eight years at the Spanish court. The boys felt miserable at leaving their father's warm and sparkling home. The prospect of living with their uncle — a distant, suspicious, pedantic, and remorseless man — chilled their young hearts. It was common knowledge that Philip was universally disliked by his subjects. A Venetian ambassador described the atmosphere at the Spanish court as being as "cold as ice." Philip, always attired in a somber black habit, was conspicuously pious. He attended endless religious services and even arranged his apartment at the Escorial monastery, which he adopted as his residence, in such a way as to be able to see the high altar from his bed. He disapproved of such hedonistic pleasures as hunting and feasting, and banned polyphonic music from his liturgy in favor of organ and plainsong.

Under Philip's stern watch, the boys' joyful and carefree childhood came to an end. Rudolf and Ernest had to focus on their humanistic studies, write letters in Latin, and help their uncle serve Sunday Mass. Philip allowed them certain joys due young princes: they could hunt, dance, and participate in chivalric tournaments. But he kept a vigilant eye on their religious education and instructed them in what he considered to be regal conduct. Whereas Maximilian's relationship with his courtiers was warm and hearty, Philip's was formal, aloof, and majestic, and he demanded tremendous reverence during his audiences. When the boys returned home from Spain, people commented that they had become distant and haughty. Maximilian even ordered his sons to "change their bearing," but their uncle's behavior had become ingrained in them. Rudolf would maintain Spanish fashion — dark clothes and hats with feathers — and a stiff manner for the rest of his life. Yet

he would never embrace his uncle's strident and bloodthirsty Catholicism. His father's moderate views and intellectual interests, which Rudolf had absorbed as a boy, would remain at the core of his personality.

As the eldest son, Rudolf began to step into his father's political shoes at age twenty, when he was crowned king of Hungary in 1572. Maximilian's health was in decline — he suffered heart attacks, the excruciating pain of gout, and bouts of "kidney colic" — so Rudolf was groomed for succession. In 1575 he was crowned king of Bohemia, and in 1576, when Maximilian died, Rudolf became Holy Roman Emperor.

The emperor presided over a complex of territories in western and central Europe — a successor state to the one Charlemagne had founded in 800 in an attempt to revive the Roman Empire. While the pope was the vicar of God on earth in spiritual matters, the emperor claimed to be God's temporal vicar, and thus the supreme ruler of Christendom. In reality, the power of the Holy Roman Emperor was illusory. Rudolf was accorded diplomatic precedence over other rulers, and his domain included what is now Germany, Austria, the Czech Republic, Switzerland, eastern France, the Low Countries, and parts of northern and central Italy. The German lands were his primary area of sovereignty, however, and his control over international affairs was limited.

In person Rudolf was a likable but hardly an imposing presence. The Venetian envoy to Prague, Girolamo Soranzo, described him as

a rather small figure, of quite pleasing stature and relatively quick movements. His pale face, nobly formed forehead, fine wavy hair and beard, and large eyes looking around with a certain forbearance, made a deep impression on all who met him. The Habsburg family likeness was evident in the largish lips which curled towards the right. There was nothing haughty in

his comportment; he behaved rather shyly, avoided all noisy society and took no part in the usual amusements: jokes pleased him not, and only rarely was he seen to laugh.

Rudolf had received a princely education and spoke German, Latin, French, Spanish, and some Czech — all the languages necessary for political and intellectual discourse in his realm. But from the start, his reign was beset by difficulties. He hoped to preside over a united Christendom, but the Holy Roman Empire was an unruly domain. A loose confederation of more than three hundred political entities of varying sizes and importance — each with its own sovereign, army, and laws — it was characterized by particularism and disunity. How could it not be when it included Germans, Swiss, Czechs, Flemings, Dutch, and Danes, as well as warring Catholic and Protestant groups within them?

Europe in the second half of the sixteenth century was consumed by religious wars, as Catholics and Protestants clashed violently, especially in the northern countries. The crisis had begun earlier in the century when various reformers had openly attacked the Catholic Church for its corruptions: priests keeping mistresses, popes selling religious offices and indulgences to finance their own luxurious lifestyles and political agendas. Then Martin Luther postulated that one could attain salvation through a personal relationship with God, rather than one mediated by the clergy. This idea fell on many ready ears, especially in light of widespread disapproval of the priesthood, and the Protestant movement spread like wildfire. Naturally, the Church lashed out against its critics, and for the next few decades conflicts between Catholics and Protestants divided not only countries but also individual cities and communities, and involved all members of society, from laborers to rulers.

An agent of the Fugger banking firm, which had many international branches, vividly conveyed the feeling of such religious clashes in his report from Antwerp in May 1581: "Eight days ago the

soldiery and the Calvinists mutilated all the pictures and altars in the churches and cloisters of Belgium. The clergy and about five hundred Catholic citizens were driven out and several among them cast into prison." Two months later he wrote again:

In the past days the Calvinists here have wrought much havoc. . . . They ravaged the Church of Our Lady, the Churches of St. Jacques, and the Palace Chapel, as well as the Convent of St. Michael, where up to now the Catholics held their religious exercises and ceremonies, in such fashion that they have wrecked everything therein, with the exception of the organ and a few pictures. . . . Not one person did protest against this, since the rule of the clergy is completely destroyed and at an end here.

In response to these disorders, and to the larger rebellion of the Low Countries against its Spanish overlords, Philip II sent his nephew the Duke of Parma at the head of a powerful army to crush the Netherlandish Protestants.\* Parma captured and subdued the rebel towns in the southern provinces, taking Antwerp in August 1585. The Dutch rebels fled to their northern strongholds, which eluded Spanish control.

But religious clashes continued to flare up elsewhere in Rudolf's empire. Another Fugger agent wrote from Steyr in October 1599 that the ruler of that territory, Ferdinand of Austria, removed two Protestant pastors from a parish in the mining town of Eisenerz and replaced them with two Catholic priests. As soon as he left town, however, the people drove out the Catholic clerics. Ferdinand, annoyed, . . . sent his officers and six hundred soldiers to reinstate his priests and keep order. As soon as Ferdinand's men entered town, they arrested the heads of the municipality, the aldermen,

\*Although this region technically fell under the jurisdiction of the Holy Roman Emperor, it was governed by the king of Spain, whose methods deeply troubled Rudolf.

the burghers, and other real and potential rebels and ordered all citizens to surrender their arms. Then they erected seven gibbets in the marketplace and prepared to begin the

hangings, beheadings, impalings and other torments, tortures and agonies, to find out by means of suffering whether there was an understanding between them and other places and districts. Altogether it is a grievous state of affairs. Everyone who can, flies from the parish. Women with their children are driven from their houses and are obliged to watch in terror and pain the miserable existence of their husbands. Although it was intended to execute the ringleaders and the heads of the town at once, it is said that Imperial Commissaries have arrived these last days, who have sternly forbidden, in the name of His Majesty [Rudolf II], any harm to be done unto any man or to put any one to the rack or torture. It is greatly hoped that His Majesty will show mercy.

Rudolf had to adjudicate such incessant religious confrontations, as well as contend with conflicting political factions in his domains. His sovereignty was continually challenged by independent-minded princes, particularly in his German lands, who were keen to pursue their own religious and political agendas. His own brothers, jealous of his power, further undermined his reign. At the same time, the Ottomans were trying to invade Europe across his empire's eastern frontiers.

After capturing Constantinople in 1453, the Ottomans continued their expansion, and in the next half century they conquered the Black Sea, the Balkan Peninsula, and Greece. In 1529 Suleiman the Magnificent laid siege to Vienna. He did not succeed in taking this city but proceeded to subjugate a large portion of Hungary — a Habsburg territory — and from there to threaten the rest of Europe.

All these problems required a strong ruler to resolve them. Rudolf, however, was more given to contemplative study than to decisive political action. "Rudolf of few words," as he was called, not only spoke little in person but also left few written statements. A complex and elusive man, he baffled his contemporaries. One moment he presented himself as a wise and charismatic sovereign; the next he appeared to be an absentminded prince who, though courteous, was eager to withdraw into his study, which seemed to matter more to him than his throne. Yet it is hardly surprising that Rudolf should have been conflicted. He strove for stability and peace, while his family and foes constantly undercut his aspirations. He was tolerant and open-minded yet surrounded by religious strife and bigotry. He detested his uncle's dogmatic Catholicism, having spent his childhood under its shadow for eight years in Spain. Now, in adulthood, he watched its brutal implementation in the Netherlands. Although he remained within the Catholic faith, Rudolf welcomed refugees from the Netherlands at his court and engaged Protestant artists and scientists — something many of his peers refused to do. And though he preferred to devote as much of his time as possible to scholarship, the demands of his office distracted him from these cherished pursuits.

An intellectual and a dreamer, Rudolf was prone to "melancholy," a form of severe depression that ran in the family and probably resulted from too much Habsburg inbreeding. (Rudolf's parents shared the same grandmother, Joanna the Mad of Castile, who was quite mad indeed: she refused to bury the body of her deceased husband for almost a year, believing in the prophecy of his resurrection.) Within a year of becoming emperor, Rudolf cracked under the pressure. The first severe bout of illness seized him in 1577. Only twenty-five years old, he developed acute gastric problems and suffered a mental breakdown. He remained sick on and off for four years, lost weight, and became reclusive.

Such physical and emotional afflictions would continue to torment Rudolf for the rest of his life.

ALTHOUGH RUDOLF WAS the absolute ruler of the empire and paid his siblings ample annual allowances, his three brothers (aside from Ernest) caused him incessant embarrassment and grief through their smoldering ambitions. Their political machinations, combined with constant harping about Rudolf's failings as a ruler, frustrated him to no end. His mother, too, refused him moral support, suspecting him of sympathy toward Protestants and of neglecting the duties of a Roman Catholic monarch. Hoping for greater independence and peace, as well as relief from his melancholy, Rudolf decided in 1583 to leave Vienna and settle in Prague.

Prague was a venerable city with a glorious past. In the late fourteenth century, under King Charles IV, it had thrived as a cosmopolitan cultural center and a lively university town. Since then its glory had dimmed, and it had become somewhat provincial. But it offered Rudolf significant advantages. The kingdom of Bohemia, with its four million souls, was the most densely populated, richest, and best developed region in central Europe. Bohemia was also more religiously diverse and tolerant than Austria, and farther away from the Vatican and the pope, whom Rudolf profoundly disliked. Bohemia's mountains provided greater protection against the Ottoman armies than did the open Hungarian plains leading to Vienna. And being removed from his family was a major boon.

When Rudolf first came to Prague, the city was both enchanting and rough around the edges. Lying in a broad basin formed by a bend of the Vltava River, it is fringed by gently sloping hills. The densely settled right bank of the river, with its skyline of numerous church spires, was home to three districts. The Old Town was inhabited by rich patricians residing in narrow, multistory

stone houses. The adjacent New Town was a more modest municipality with market squares, booths, storehouses, and counting-houses. On the other side of the Old Town stood the crowded Jewish ghetto, with its closely packed homes. Thanks to Bohemia's religious tolerance and the financial usefulness of the Jewish community, Prague developed into the most significant central European center of Hebrew scholarship and publishing.

On the left bank, the Lesser Town nestled between the castle and the Charles Bridge. A residential and service area of the castle, the Lesser Town was the neighborhood of courtiers and court craftsmen, including the large community of northern Italian stonemasons, bricklayers, stucco workers, and painters whom Rudolf had summoned to Prague to renovate the castle. A major fire had destroyed much of the Lesser Town in 1541, so it was abuzz with building activity as members of the aristocracy snapped up the vacant lots and erected imposing new palaces on this prime real estate.

Prague was not large, its population totaling only about fifty thousand. The relocation of the imperial seat there brought new vigor and growth to the city, along with noise, dirt, and crowds of beggars, criminals, and prostitutes. The streets were often muddy, the squares piled with manure, and channels of filthy water ran from the courtyards of aristocratic residences. With time Rudolf's presence and his patronage of the arts and sciences would turn Prague once again into a cultural mecca and usher in its second golden age.

While the city bustled with activity, Rudolf kept to himself in his castle on the hill, removed from all this commotion. Hradcany, as this district was called, was a town unto itself. In addition to the royal palace, there stood the Cathedral of St. Vitus, the residence of the archbishop of Prague, and the imposing homes of leading Bohemian nobles. The mighty ramparts and the deep Stag Moat (a dry ravine encircling the palace) made the castle



appear inaccessible and majestic, and the surrounding gardens cloaked it in a mantle of peace. It was just what Rudolf wanted.

ALAS, PRAGUE DID NOT remove the emperor from the political and religious turmoil he had hoped to escape. On Christmas Eve 1590 a Fugger agent reported to the home office on the growing tensions in the city. Apparently a rumor had spread around town that Catholic priests were planning to forcibly occupy several Hussite Protestant churches.\* Rudolf, notified of this imminent confrontation, ordered an inquiry and then issued a proclamation, posted in all public places, calling for calm. But people were still in an ugly mood, and

in all parts of Prague there broke out disturbances. It has been ordered that a number of burghers hold night-watch in all the suburbs of Prague. Likewise, house-to-house visitation was carried out in order to ascertain how many strange guests there be with each citizen, how named, from whence, and of what nature their business. This had to be reported to His Majesty. Moreover, it was ordered that whosoever should know or hear of any danger should give tidings thereof to His Majesty or the Council. This scheme may lead to great bloodshed, theft and pillaging, if by chance a daring murderer or robber make use of this rumor [of the Catholic takeover] to start an outcry and raise disorder in the town of Prague.

\*Hussites were followers of Jan Hus, a religious leader burned for his heretical teachings in 1415. A powerful force of religious dissent in Bohemia and Moravia, they demanded freedom to preach, Communion of wine and bread for the laity as well as priests, the limitation on property holding by the Church, and civil punishment of mortal sins, including simony (the buying and selling of Church offices). The Hussite movement was the first substantial attack on the Roman Catholic Church, and it helped pave the way for both the Protestant Reformation and the rise of modern nationalism.

In addition to these internal conflicts, Rudolf's territories, particularly his Hungarian frontiers, were threatened by a renewed Ottoman offensive. As we have seen, the conflict between the Europeans and the Ottomans was long-standing, with both sides seeking to crush the "infidel" and gain vital economic territories and shipping routes. The Ottomans enjoyed a period of remarkable westward expansion after their conquest of Constantinople and suffered a major blow from the Europeans only in 1571, when their navy was demolished at the Battle of Lepanto by the Holy League (composed of papal, Spanish, Italian, and other European forces). Despite the massive Turkish defeat, the tensions and rivalries among the Europeans prevented them from pressing their victory and attaining a lasting supremacy over the Ottomans. By the early 1590s the Turks had regrouped and began a new action against the Europeans, their line of attack starting at the doorstep to Rudolf's lands.

Rudolf was keen to fight them, but he could not do it alone. Other rulers within the Holy Roman Empire, as well as the pope and Philip II, refused to cooperate with him on his terms or to give their support without some guarantee of control over the war. At the same time, poor generalship and squabbles between commanders on the battlefield further hampered Rudolf's military efforts. These setbacks aggrieved him intensely. Although he was a religious moderate when it came to Christianity, he was imbued with the traditional Habsburg zeal for crushing the enemies of Christendom and impetuously wished for either a complete victory over the Ottomans or none at all. Instead, he became mired in a protracted conflict that lasted for a decade and a half.

Rudolf was also distressed by his failed plans to marry, even though it was largely his own fault. His family — his mother and brothers — were alarmed at the absence of an heir and pushed him into what seemed to be the most advantageous match, with his Spanish cousin Isabella, daughter of Philip II. But Rudolf could not abide falling under his uncle's immediate influence.

The negotiations dragged on for fifteen years. Finally, Isabella was betrothed to Rudolf's younger brother Albrecht. Although Rudolf had let the union slip through his hands, he flew into a rage at the news, feeling utterly betrayed. He then tried to negotiate a marriage with Maria de' Medici, daughter of the grand duke of Tuscany, but this match also came to nothing, again because of his procrastination. Once more he was desolate when Maria married Henry IV of France instead.

Rudolf's inability to marry had nothing to do with his physical capacities. He was well known for his illicit liaisons and had a long-term mistress in Katharina Strada, the daughter of his favorite court antiquary, Jacopo Strada. Katharina even bore him several children who were brought up at court. The problem was a reluctance to trust anyone, which perhaps stemmed from Rudolf's childhood, when he was sent away from home by his mother. His mistrust was exacerbated by the political intrigues around him and by his propensity for depression and paranoia. As a result of all these political and personal difficulties, Rudolf grew more morose and removed from the world. He turned for solace to his intellectual pursuits.

THROUGHOUT HIS LIFE Rudolf actively patronized the fine arts and natural sciences. He collected paintings and sculptures by the best artists, bought scientific instruments, and amassed an impressive collection of flora and fauna, both alive and dead. As a powerful ruler he was expected to set up an art gallery and a cabinet of wonders in his palace, so his collecting was in part consonant with his position. But it was spurred far more strongly by his insatiable curiosity and his quest for knowledge.

Thanks to new developments in natural history, the sixteenth century was a great age of collecting and studying a variety of man-made and natural creations. With the discovery and exploration of the New World by Cortés and other adventurers, novel birds,

animals, and plants streamed into Europe, arousing wonder and inspiring changes in scientific thought. Until then scholars had relied on the works of Aristotle and Pliny when interpreting nature, but the influx of unfamiliar species made natural scientists rethink the old system of knowledge. Stimulated by encounters with exotic creatures, they began to study afresh the familiar ones as well.

The Swiss naturalist Konrad Gesner revolutionized the investigation of the animal world in particular with his *Historia Animalium* (History of Animals), a five-volume encyclopedia published between 1551 and 1558. In this massive publication — 4,500 pages long, with nearly 1,000 woodcut illustrations — Gesner compiled all that had been written on animals by ancient and medieval authors, as well as all he himself could learn from the direct study of live beasts, their skins and bones, and drawings and descriptions sent to him by correspondents from around the world. Reveling in the idea that seeing led to knowledge, Gesner and his contemporaries placed new emphasis on empirical evidence.

Gesner divided the animals into five Aristotelian categories — mammals, four-legged animals that lay eggs, birds, animals that live in water, and serpents, including dragons. (He planned a sixth volume, on insects, as well as a vast *History of Plants* but died prematurely of plague in 1565.) Gesner arranged the animals alphabetically — not an ideal system, but a sensible one. He began his discussion of each animal with its name in many languages, then offered a precise description and information on its morphology, diet, reproduction, ecology, and enemies. After that he addressed the particular uses of a given creature in medicine, agriculture, and other spheres of human activity. In the final section he considered the symbolic, allegorical, and moral meanings of the animal in different civilizations, thus providing its cultural history.

Ulisse Aldrovandi, another great naturalist of the age and the author of *Ornithologiae* (Ornithology) (1599) and *De animalibus insectis libri septum* (Seven Books About Insects) (1602), de-

scribed to his patron, Cardinal Barberini (the future Pope Urban VIII), his study of insects in the field.

What my labors have been, and to what lengths I went, I could wish you to judge; and when I reflect on the many days I have given to this study, and what expenses I have incurred, I cannot but wonder how I have been able to obtain possession of, and to examine, and to describe such a number of minute creatures. For the attainment of my object, I was in the habit of going into the country for months during the summer and autumn, not for relaxation, like others; for at these times I employed all my influence, as well as money, to induce the country-people to bring me such insects, whether winged or creeping, as they could procure, in the fields or under ground, and in the rivers and ponds. When any were brought me, I made inquiries about its name, habit, locality, &c. I often, too, wandered over the marshes and mountains, accompanied by my draughtsman and amanuenses, he carrying his pencil, and they their notebooks. The former took a drawing if expedient, the latter noted down to my dictation what occurred to me, and in this way we collected a vast variety of specimens.

Collecting an extensive assortment of live and preserved fauna and flora became essential to the new approach to natural history. By assembling his own array of specimens, a scholar had knowledge at his fingertips. As natural history turned into the passion of the age, rulers eager to be at the forefront of scientific inquiry began to amass their own collections of animals, minerals, plants, and other natural marvels. Rudolf eagerly embraced this trend.

Of course sixteenth-century natural history was not yet "pure science." Nature was still viewed above all as a manifestation of divine creativity. And man's purpose in studying it was to marvel at God's ingenuity. As the humanist Giovanni Pico della Mirandola

wrote in his *Oration on the Dignity of Man* (1486), after creating the world and populating it with animal life, the Divine Architect "longed for a creature which might comprehend the meaning of so vast an achievement, which might be moved with love at its beauty and smitten with awe at its grandeur." The French naturalist Pierre Belon, in his *Natural History of Birds* (1555), contended that it was one of the chief duties of a well-bred man to improve his understanding of the universe by studying and admiring God's creations. And the English clergyman cum naturalist Edward Topsell promoted the study of nature as a guide to salvation. In his *Historie of Foure-Footed Beastes and Serpents* (1607), he argued that God saved the animals from the Flood in order to allow humans access to divine genius. "Surely, it was for that a man might gaine out of them much knowledge, such as is imprinted in them by nature, as a spark of that great wisdome whereby they were created."

Indeed, the story of Noah's ark served as a major inspiration for collecting animals, both live and preserved, and for classifying them as a step toward attaining this true knowledge. Sixteenth- and seventeenth-century natural philosophers were engrossed by the ark. They wrote treatises and made elaborate calculations trying to figure out its size and design, composition and organization. But to re-create it fully, one also had to gain a complete understanding of the species of animals, their sizes, habits, diets, and life cycles. Aldrovandi, who assembled one of the most famous natural history collections of his day, was called a "second Noah."

Rudolf, spurred in part by his desire to grasp the wonderful variety, beauty, and purpose of divine creation and in part by his wish to escape his political and personal problems, avidly hunted for specimens from every possible source. He enlisted merchants, with their far-flung contacts, to seek out diverse creatures, urged his diplomats to acquire animals for him from distant countries, kept an eye on rare beasts procured by other rulers, and tried to

cajole them to cede the creatures to him. His hunger for exotic fauna had no bounds, and he spared no effort or expense to assemble a complete compendium of it in Prague.

THE INCREASED MARITIME traffic to the New World, Africa, and Asia channeled a steady stream of new birds and beasts to Europe. They aroused astonishment and delight in some, greed and competition for ownership in others. When the Portuguese, having set out in search of gold, returned to Lisbon with strikingly colored parrots and adorable monkeys from South America, these instantly became prized commodities. In 1522 Magellan brought home stuffed birds of paradise, native to New Guinea and the Moluccas. These ethereal creatures fascinated the Europeans and made them eager for more. When Rudolf's uncle Philip II added the throne of Portugal to his possessions in 1580, he inherited its trading posts in Brazil, the East Indies, and India. He enchanted his daughters back in Madrid with news of the arrival in Lisbon of ships from India loaded with precious spices and fabulous animals, including an elephant, still a great rarity in the West.

The Fugger banking house added exotic animals to its portfolio. At Antwerp — Europe's major port, which received shipments from around the world — it set up next to its business offices a large garden full of cages where foreign beasts could be temporarily kept before being sold to collectors across Europe. The business was so brisk that the Antwerp branch managers complained to the head office in Augsburg of the large amount of work involved in handling "monkeys" from India, Africa, and South America. In Amsterdam the Dutch East India Company, founded in 1602, built special warehouses and stables on the quayside to hold exotic creatures before selling them off to an enthusiastic international clientele. (The company also had an intermediary animal depot at its colony on the Cape of Good Hope.)

Meanwhile, Dutch sea captains returning from distant voyages displayed the animals they brought back for a lucrative fee. It was thanks to Dutch traders that Rudolf obtained the first live cassowary ever to come to Europe.

The cassowary is a large, flightless bird that dwells in the tropical forests of Australia and New Guinea. It has glossy black plumage that looks like thick hair, a bright blue neck with a patch of brilliant red skin on the nape, and two long red wattles dangling in front. A domed horny helmet rises atop its head, over the eyes and beak, giving it its name, which derives from the Papuan word meaning "horned head." The bird uses this helmet to push aside vegetation as it runs through the rain forest with its head bent down. The cassowary's stout, powerful legs end in long, three-toed feet. The inner toe has a deadly 4½-inch-long spiky claw, which the bird uses for defense.

Rudolf's cassowary had had quite an adventurous life. It made its first recorded appearance on December 4, 1596, as a gift from the king of Java to a Dutch ship captain sailing in search of spices. The bird, however, was "as much a stranger to the inhabitants of Java as it is new for us," remarked the French scientist Carolus Clusius. The king of Java had probably received the cassowary as a diplomatic gift, although from whom it is not recorded. Given the rarity and the spectacular appearance of the creature, the king must have figured that it would make an excellent goodwill offering to the Dutch traders, known for their fierce conduct in the East Indies. The Dutch gladly accepted the bird and managed to preserve it alive and in good health on the long journey home. The cassowary disembarked in Amsterdam in July 1597. For several months it was put on display, and locals and foreigners passing through the bustling port gawked at it — for a fee. After its novelty had worn off a bit, it was sold to Count Georg Eberhard von Solms, who collected animals in his park at La Haye.

When news of the remarkable bird reached Rudolf, he at once undertook to secure the fascinating stranger for his menagerie.

Did it offer him some consolation from the rage he felt upon hearing that his bride-to-be Isabella had just been betrothed to his brother Albrecht? Rudolf threw great effort into obtaining the cassowary, calling on a local duke to help persuade the count to give the bird to him. Rudolf may well have expected a truly fantastic creature, for rumors said that the strange "Indian" bird ate embers and red fire. Four months later, the cassowary arrived in Prague. It did not peck at coals, but it was a spectacular specimen, with its long cobalt blue and raspberry red neck, which was visible from afar in the Royal Garden, and its rounded helmet, giving it regal hauteur. Rudolf was thrilled with his acquisition, generously rewarding the courtiers who delivered it to him.

Rudolf was now the only man in Europe to possess such an extraordinary pet. To honor and safeguard his distinguished animal, he erected in the Royal Garden an imposing aviary especially for the Indian bird and engaged the painter Bartholomäus Beranek to decorate the cassowary's home with pretty pictures — perhaps evocations of its natural habitat. While the emperor was clearly elated, it is harder to know how happy the cassowary was in its new abode or how long the tropical creature lasted in the wintry Prague climate. By 1607 it was listed as a stuffed specimen in Rudolf's *Kunstammer*. Not quite as splendid in death as in life, it was still a valuable sample that could be studied for its body structure, plumage, and distinctive features.

Rudolf was also delighted to secure a dodo — very likely the first live one to reach Europe. This gawky and defenseless bird was discovered by Dutch sailors on the island of Mauritius on September 18, 1598. Five Dutch ships had come upon this uninhabited island in the Indian Ocean while heading for the East Indies. After landing, the sailors spotted a strange bird waddling around the island and showing no signs of fear at their approach. The undaunted creature had a heavy, ungainly body, stubby wings too small to lift it off the ground, and a large beak shaped like a lobster claw. Originally the dodos, or rather their ancestors,

probably did fly, but when they landed on Mauritius and found plenty of food and no predators, they evolved into ground dwellers. Accustomed to their comfortable life on the island, dodos had no idea that the newly arrived Europeans were a dangerous species that would pounce on them and turn them into an easy and tasty meal.

One could well understand the excitement of the Dutchmen — tired of rancid meat and stale, maggot-eaten biscuits — joyfully plucking the bizarre birds from underfoot and savoring their fresh meat, even as they tried to puzzle out what these creatures were. A mixture of scientific perplexity and gastronomic fixation pervades all Dutch accounts of the dodo. First commissar Jacob van Heemskerck described it to the best of his ability: "There is also there a kind of bird the size of a goose, which has legs as those of an ostrich and feet of an eagle, and a very large beak. . . . It has a few feathers in its legs, its wings are like those of jackdaw; they are very fat and their legs, once de-feathered, are very good, but their skin a bit tough." Helmsman Heyndrick Dirrecksen Jolinck jotted down in his diary: "Moreover we found large birds whose wings are the size of those of pigeons, of the kind that cannot fly and that the Portuguese call pingouins. These birds have a stomach [breast] so large that two men can make a royal meal out of it, and it is also their tastiest part." Another helmsman, Philip Grimmaert, echoed the culinary theme: "There were also here big birds, the size of lamb, and we ate them equally; we called them Doederssen [*dodoor* being a Dutch word for a sluggish person]." This may have been the origin of the name dodo.

When the Dutch returned to Amsterdam in late July 1599, they apparently brought aboard a live dodo. It says much about the scientific passion of the age (and the profit to be derived from selling foreign fauna) that the sailors did not eat the bird along the way. Such a fate certainly befell many exotic animals on homeward journeys as food supplies dwindled and fascination with their strangeness dulled. Once the dodo reached Europe,

Rudolf jumped at the chance to add it to his collection, probably buying it from a Dutch merchant who sold him other animals, including birds of paradise.

Did the dodo provide an uplifting distraction from the anxieties and fears Rudolf felt at the approach of the millennium — feelings that would soon push him over the edge? Again he asked one of his court artists to paint the uncanny creature for his compendium of fauna illustrations. (Illustrations of animals became in this era a crucial component of natural history studies because they supplied valuable visual data. As Konrad Gesner wrote, the reader of his *Historia Animalium* could look at the woodcut images of the animals he discussed wherever he pleased, whereas the ancient Romans could see exotic beasts only for the duration of the games.) Likely using this painting as his model, Carolus Clusius made a printed image of the dodo, thus bringing it for the first time to the eyes of Europeans. He included it in his *Exoticorum libri decem* (Ten Books of Exotica), an up-to-date and extremely influential presentation of new animals and plants published in 1605 and based in part on Rudolf's menagerie.

It is unclear how the dodo adjusted to its new life in Prague. By 1609 its embalmed body also resided in Rudolf's *Kunstkammer*. The mortality rate of exotic animals and birds was tragically high once they had been transported to unfamiliar climates and fed inappropriate food. Rudolf probably mourned the demise of his dodo as of his other singular pets, but it seems he was more motivated by a collector's zeal and scientific curiosity than a deep love for the animals. He clearly found them as fascinating and useful when they were in his menagerie or his aviaries in the Royal Garden as when they passed into his anthology of preserved specimens inside the Prague Castle. Not that Rudolf did not care whether his animals were dead or alive; he looked for living beasts first and was mesmerized by them. But his intellectual interests led him to prize stuffed creatures, too, because he could gather more of them than of the live ones, enabling scholars to draw wider conclusions

about the properties and peculiarities of each species. The stuffed dodo would acquire even greater value once the bird became extinct only a hundred years after its discovery, having fallen pathetically easy victim to the appetites of the Europeans who landed on Mauritius and the cats, rats, and pigs they brought along.

Rudolf could more readily obtain exotic birds than mammals for his menagerie because birds were easier to bring to Europe. Ships returning from the New World, as well as from the East Indies, often sailed with long rows of birdcages aboard, hoping that their inmates would survive the journey and realize a good profit. Thus the emperor was able to augment his aviary with New World parrots, such as blue macaws with yellow breasts and scarlet macaws with blue and yellow wings, which enlivened the Royal Garden with their tropical colors and loud chatter. He also acquired lovebirds — small parrots with green-blue bodies and red faces and beaks — that live in pairs in tropical Africa and Madagascar. And from Amboine, in the Moluccas, Dutch East India Company merchants brought him a purple-naped lory, a parrot with a red body, green wings, blue feet, and a purple "hat" and wing tips. Rudolf had one of his court artists paint a portrait of the lory cheerfully pecking at a pear, which it holds in place with its claw. Sweet and affectionate creatures, lorries make lovely pets. If the portrait does not lie, it would seem that the lory got on quite contentedly in Rudolf's care. The emperor's salmon-crested cockatoo — with its striking white plumage, orange crest, and beak whose curved upper and lower portions overlap like round scissors — lasted through seven Prague winters thanks to the devoted care of the old valet de chambre Christoph Ranft. When it died in August 1608, Ranft received a handsome severance pay of one hundred florins "for seven years of caring for the white parrot and feeding it with the food of its native island [southern Moluccas]."

Rudolf's two ostriches had a rougher time. They were brought

from Africa aboard a Venetian galley in 1603. Purchased in Venice by the emperor's agents, the large birds were loaded on carts and transported by an overland route via Innsbruck (Austria), then transferred onto a boat and taken by water to Linz, unloaded onto a cart again, driven to the Vltava, and put on another boat to Prague. The distance between Venice and Prague is 335 miles, but the journey lasted twenty-eight days and taxed the spirits of the birds and their four attendants. Not only was it exhausting to heft crates with heavy and stressed birds on and off carts and ships, and to bump for days along uneven roads and through mountain passes, but the travelers also had to contend with crowds of locals assembled to gawk at the bizarre creatures at every stop along the route. Nor did the ostriches enjoy a long life once they reached the Royal Garden. By 1607 they appeared in the inventory of Rudolf's *Kunstkammer* as mere skins and bones.

Rudolf bought at least some of his birds of paradise — crow-like birds with gorgeous plumage and trailing tail feathers — only as preserved specimens. His supplier in this case was the merchant Hans van Weely, who regularly sold him exotic fauna. The emperor would eventually accumulate sixteen such birds, of different varieties, including the king bird of paradise, with a bright red body, white stomach, blue legs, and two long antenna-like tail feathers ending in a green spiral curl; and the lesser bird of paradise, with a brown body and long, bright yellow and white tail plumes. (Both came from New Guinea.)

Over the course of his reign Rudolf's passion for fauna had become common knowledge, and the fame of his menagerie spread throughout the realm. Though not open to the wider public, it was accessible to Rudolf's visitors and to some well-placed foreigners, who penned accounts of their visits to his zoo. The collection grew thanks to direct purchases and gifts, as those wishing to please or court the emperor would send him exotic beasts. In this way, for example, despite the European war with the Ottomans, Rudolf acquired several dromedaries — very rare in central

Europe at this time. Rudolf's subjects in Hungary, which lay closest to the Ottoman Empire, procured these animals via Turkish intermediaries and presented them to Rudolf. When the English traveler Fynes Moryson visited Prague in 1591, he counted a dozen dromedaries in the Royal Garden. They must have looked incongruous and marvelous, chewing contemplatively as they strolled about the manicured castle grounds.

It was lucky that some animals came to Rudolf for free, for he spent huge sums not only on obtaining so many beasts but also on housing them at his castle. Most of the live animals and birds lived in the Royal Garden, where Rudolf liked to promenade on horseback. His ancestors had previously built a small zoo, but he greatly expanded the premises and their inhabitants. The Royal Garden lay on the north side of the castle and was separated from it by the Stag Moat, where game that Rudolf hunted for diversion was allowed to graze. (Though fascinated by exotic creatures, the emperor had no difficulty killing more common species for sport, and stuffed deer heads abundantly decorated the interior of the castle.) A covered wooden bridge led from the castle to the garden, allowing Rudolf to come and go without being seen, which suited his introverted nature. He preferred to spend time alone here. In addition to the deer ambling around the grounds, buffalo, aurochs, and central Asian sheep with white fleece and black faces and ears munched contentedly on specially allocated meadows.

Rudolf's predecessors had also built a series of pleasure amenities in the garden. His uncle Ferdinand of Tyrol had erected the Belvedere pavilion at the eastern end of the park, with a large ballroom for summertime dance parties. Rudolf was not interested in such pastimes, so he converted the Belvedere into an observatory for Tycho Brahe when the famous astronomer came to his court at the turn of the century. Later he made it into a museum of scientific instruments.

Rudolf's desire to surround himself with the creatures of his passion continued inside the palace. In the castle courtyard, he

set up a large perch for his eagle, a symbol of the Holy Roman Emperor. Depictions of this raptor were ubiquitous on the imperial insignia, but Rudolf went to the trouble of keeping a live one. The bird made international news when a Fugger agent reported to the home office that "a short while ago, His Imperial Majesty wished to betake himself to his apartments. . . . Thereupon the eagle, who has his stand in the courtyard by the cistern of the fountain, flew towards His Majesty through the corridor and into his own chamber. There, upon a table, a snow-white dove was to be seen, whereat His Majesty was greatly surprised, for it was unknown to him that white doves were bred in that part of the country." The Fugger agent marveled at the prominence of animals in Rudolf's castle and wondered if the birds' behavior was some kind of an omen.

Rudolf's lions also lived in close proximity to the emperor. He was exceedingly fond of these beasts, having inherited his love for them from his father. Like Maximilian, Rudolf kept a lion in the castle, as if it were a domestic cat, and let it prowl the corridors and curl up by his side, to the astonishment and fear of onlookers. His other wild cats resided in the Lion's Court in the northern part of the Royal Garden. When Rudolf first came to Prague, there had been a wooden animal pavilion there. He replaced it with a stone building with seven large enclosures (10½ by 15 feet each), all facing east, which gave a more comfortable exposure to his animals by letting in the morning light and not overheating the cages during the day. A corridor led from this building to a small adjacent yard through which animal keepers came to clean cages, bring food, and make appropriate heating arrangements in the winter. A spiral staircase in one corner of the courtyard led up to the visitors' gallery overlooking the cages. Rudolf would stand there for long periods, admiring his majestic cats.

Between his affection for big felines and their high mortality rate, the emperor regularly bought lions, tigers, and leopards. The cost of feeding a whole menagerie of hungry animals, on top of

paying for their purchase and transport, was a heavy burden on the imperial treasury and on Rudolf's subjects, who were expected to subsidize it. Upkeep was expensive, as the lions required some thirteen pounds of meat per animal per day.

There was, in fact, not always enough money to feed the voracious beasts, and they were often hungry. (Rudolf's wars and other expenditures drained his finances, and he was in desperate need of new sources of wealth.) This might explain why on several occasions the emperor had to recompense servants and subjects mauled by his felines. On September 15, 1581, the imperial treasury was ordered to pay the court barber Matthäus Schrag, the halberdier Hans Rider, and an unnamed woman a compensation for having been attacked and wounded by the emperor's lion inside the Prague Castle. The barber survived the encounter, but the halberdier and the woman died of their wounds. (Presumably their families received the payment.)

Rudolf's tigers caused similar problems. The largest of wild cats, adult male tigers can reach up to 9 feet in length and 660 pounds. Yet Rudolf apparently let them run around half-hungry. In 1580 Peter Zitardus — the guardian of the felines at the Ebersdorf palace, where Rudolf continued to maintain the zoo founded by his father — had to pay an indemnity to a blacksmith whose young child had been wounded by a tiger. The beast must have escaped his cage and begun prowling the palace grounds in search of food. In 1596 the surgeon Georg Schaller received twenty florins to care for another poor boy wounded by His Majesty's tiger. It seems that Rudolf's menagerie eluded his control, just as did the larger political realm he struggled to rule. In the aftermath of each animal attack, it must have been nerve-wracking for Rudolf's servants and courtiers to walk down the castle corridors and grounds, wondering when they might be pounced on by a colossal cat.

Tigers were rarer than lions, which resided in royal and municipal menageries throughout Europe, and thus were considered



more valuable and prestigious beasts. The same was true of leopards. Unfortunately, Rudolf's leopards — brought to Europe from Africa, Asia, and India — seem to have been of greater danger to themselves than to humans. In 1579 an Austrian baron bought two leopards for Rudolf for a princely sum of 568 florins. (A sixteenth-century foot soldier was paid 4 florins per month and a veteran soldier 8 florins.) As the animals were being shipped from Venice to Vienna, one of them turned unruly and began to tear violently at its collar. It ripped at it so ferociously that it punctured its own neck. Then, before its guardians could come to the rescue, the poor beast strangled itself, probably by pulling too fiercely on its leash. It was a sad loss, though not a complete one; Rudolf received one live leopard for his menagerie and one hide for his *Kunstkammer*. In 1587 his master of the hunts, Wolf Sigmund, Baron of Auersberg, presented Rudolf with two more leopards plus one English dog.

While lions, tigers, and leopards commanded attention at the Prague Castle, Rudolf's cheetahs added luster to the Star Villa, his hunting lodge outside Prague. Renaissance princes who could afford it kept cheetahs as prized hunting accessories. Keen to take advantage of these cats' hunting qualities and instincts, men over the centuries had perfected the art of catching adult cheetahs in the wild, taming them within a few months, and training them to work with humans. On the day of the hunt, a cheetah, much like a falcon, had its head covered to keep it from seeing its prey too early and taking off after it. It was led to the hunting area on a leash, in a cart, or on the back of a horse, where it sat behind the rider. Once near its quarry, the animal's head was uncovered, and the cheetah sprinted away. Then, after it had captured the desired game, the trainer would reward it with a piece of meat, which reinforced the contract between man and beast.

Rudolf enjoyed the thrill of the chase and the elegance and skill with which his working animals — horses, dogs, and falcons — played their part in the hunt. His cheetahs' grace and

speed made the sport all the more splendid. Because they reproduced poorly in captivity, cheetahs had to be continuously imported from Africa and Asia, so they remained costly and exotic. Fynes Moryson was very impressed with these magnificent beasts at Rudolf's hunting lodge:

The Emperour hath two inclosures walled about, which they call Gardaines, one of which is called Stella, because the trees are planted in the figure of starres, and a little faire house therein is likewise built, with six corners in forme of a starre. And in this place he kept 12 Cammels, and Indian Oxe, yellow, all over rugged, and hairy upon the throate, like a Lyon; and an Indian Calfe, and two Leopards [actually cheetahs\*], which were said to be tame, if such wild beasts may be tamed. They were of a yellow colour spotted with blacke, the head partly like a Lyon, partly like a Cat, the taylor like a Cat, the body like a Greyhound, and when the hunts-man went abroad, at call they leaped up behind him, sitting upon the horse like a dog on the hinder parts: being so swift in running, as they would easily kill a Hart.

Prized and exotic in a different way were Rudolf's albinos. In 1603 Pierre Bergeron, upon visiting Prague, noted, "Then there was a menagerie with lions, leopards and civets, as well as a crow as white as snow." Like Montezuma, Rudolf saw albino animals as miraculous beings (though, happily, he kept only animal pets, not humans). He had a live albino raven, magpie, and stag, which aroused wonder in visitors. Other *Kunstkammer* specimens that reflected nature's variety included the foot of a sparrow hawk with twelve claws, the skin of a fawn with two heads, a quail with

\*People often confused cheetahs and leopards because of their similar appearance. They are two distinct species, and cheetahs were the ones trained to hunt with men.

three legs, a worm whose tail blossomed into a branch, and other marvels. When he could not obtain actual prodigies, live or preserved, Rudolf got drawings of them to make his collection as complete as possible. Among the most remarkable of these representations was the portrait of Pedro Gonzales and his children.

Gonzales, born in 1544 on Tenerife in the Canary Islands, was afflicted with hirsutism, the congenital occurrence of abnormal hair growth over one's entire body. Deemed "a miraculous work of nature," he was shipped as a baby to France, to the court of King Henry II. Educated by the king and "rejecting the customs of his native land" (his barbaric ways, presumably), Gonzales studied fine arts and Latin and became a man of letters. After his royal patron died, Gonzales moved to the Netherlands, where around 1563 he married a perfectly normal woman — a rather attractive Dutch girl. The couple had four children; three of them inherited their father's hirsutism.

Because of their marvelous appearance, the Gonzales family became international celebrities and were painted by several artists for princely collectors. In these portraits Pedro and his hairy children were depicted as nobility — dressed in opulent aristocratic garments — but with furry, animal-like faces. The little girl in particular looked like a pretty cat decked out in human clothing. The strangeness of these people — the wondrous way in which they combined a cultured European spirit with animal-like bodies — was heightened by the inclusion in some of the portraits of their mother, a pleasant smooth-skinned woman in simpler attire.\*

As the naturalists of their day saw it, Gonzales and his children were the epitome of divine creativity. By adding their portrait to his collection of fauna, Rudolf augmented its encyclopedic scope. And although he did not keep people in cages, in this peculiar case

\*The portraits usually showed only two of the hairy children. Perhaps the third one did not survive and the fourth, normal-looking one was too unremarkable to depict or also died.

he seems to have had no qualms about blurring the line between fantastic animals and people. As Carolus Clusius wrote in his *Ten Books of Exotica*. "I hear that in these foreign things of his, His Majesty is greatly delighted by the thought of all the miracles of Nature."

All of this collecting provided Rudolf with an escape from his political woes. Nothing illustrates this better than his long pursuit of a rhinoceros. Instrumental to this wild goose chase was his ambassador to the Spanish court, Hans Khevenhüller. Given the fraught relations between Rudolf and Philip II, Khevenhüller had his hands full with all kinds of diplomatic matters. It is astonishing, then, how much time and energy he devoted — or, depending on one's point of view, wasted — in tracking down the rare creature for his lord.

In September 1577 a rhinoceros arrived in Portugal from India. This massive beast, with a deeply creased hide that looks like armor plates, has an unpredictable character and can be dangerous when threatened, charging its potential enemy with its horn lowered and ready to strike. Few wished to risk their lives capturing and transporting live rhinoceroses, so the appearance of such a creature in Lisbon made international news. As soon as it reached Rudolf, he apparently instructed Khevenhüller to secure the marvelous beast for him.

Unfortunately, there were other contenders, including Francesco I de' Medici, the grand duke of Tuscany — another avid student of nature — and Pope Gregory XIII. But Khevenhüller was not easily discouraged. He began by ordering a portrait of the rhinoceros, which he dispatched to Prague as a kind of promissory note, as well as a piece for Rudolf's collection of illustrations. Khevenhüller's plan was to wait until King Sebastian of Portugal presented the animal to the king of Spain. He was reasonably sure that he would then be able to secure it for Rudolf since, "as Your Majesty knows, the king [Philip II] is not so keen on such things."

Frustratingly, however, Khevenhüller's initial negotiations were

annulled when, in August 1578, King Sebastian fell in a bloody battle in North Africa between the Portuguese and the Moors. Sebastian's old uncle Henry, who had been a cardinal, stepped in to take the throne. Khevenhüller dispatched servants and diplomats to get the beast from Henry, offering to pay the cost of transporting the cumbersome and foul-tempered creature to Madrid and then on to Prague. But King Henry had different plans. He needed to persuade the pope to relieve him of the vow of celibacy he had taken as part of his previous ecclesiastical career and which, in his present position, was quite a burden. The gift of an astonishing animal seemed to him a perfect offering to gain the pontiff's favor.

On January 31, 1580, Henry died without having dispatched the rhinoceros to Rome. After several months of uncertainty and a struggle for succession, Philip II invaded Portugal and claimed the throne, in the process wreaking great bloodshed and destruction on Lisbon. Under the circumstances, the rhinoceros faded from view for some time.

In August 1582 Khevenhüller seemed to be getting closer to obtaining the beast. He was pondering how to send it to Prague. It was a ferocious animal, he reported to Rudolf, and its transport would cause great difficulties. "Even though its horn has been cut down, it does not cease to kick and maltreat people around it. Recently it even killed a royal servant. It is a dangerous animal. And blind in one eye, and they think it does not see much out of the other."

As it turned out, Khevenhüller had been wrong to get his hopes up. At the beginning of 1583, once Philip II had stabilized his affairs in Portugal enough to be able to return home, he decided to keep the rhinoceros for himself. Transporting it to Spain, along with an elephant that had arrived from India in 1581, he proceeded to send the two animals on a tour around the country to be shown to the marveling populace. Even three years later the animals were still bringing profit, both material and political, to Philip. In November of 1584 they were put on display in Madrid, to impress the first Japanese delegation ever to come to Europe.

Since there was no love lost between Philip and Rudolf, the Spanish king obviously was not in a rush to cede his valuable animal to his Protestant-sympathizing, rebel-shielding nephew.

At last, in 1603, Rudolf received word that the rhinoceros had died. But the demise of an animal did not dissuade the emperor from trying to add it to his encyclopedic collection. In 1605 he would gladly buy from Emanuel Swerts of Amsterdam, a merchant who regularly supplied the court, a stuffed sloth that had expired en route from America. Rudolf also possessed the skin of a pangolin (a scaly mammal that dwells in Africa and Asia), three preserved South American iguanas, four armadillos, two chameleons, two Indian crawfish, and some blowfish and sea horses, among others.

Even in death, however, the rhinoceros, or what remained of it, proved elusive. After many months of inquiries and pleas, Khevenhüller was told that its hide was no longer available. It had been poorly prepared and was spoiled and full of worms. Still, the tenacious Khevenhüller and his lord were determined, after all this time, to get some piece of the beast. At last, in December 1603, Khevenhüller laid his hands on the animal's horn and some bones. He dispatched them to Prague with what must have been an audible sigh of relief. It had taken nearly three decades of intense diplomatic efforts to add this creature to the emperor's scientific menagerie. Though far from a complete specimen, it was, by the standards of the day, a valuable stand-in for the whole beast. The rhinoceros turned out to be a perfect symbol of Rudolf's intrinsic impotence to master his political world. Instead of pursuing diplomacy that might get him out of his bind with his family, with the Ottomans, and with his other rivals and critics, he spent his ambassador's time chasing after a rhino — and then the rhino's carcass.

JUST AS RUDOLF'S animal collecting was gaining momentum, his political situation worsened alarmingly, together with his mental

state. In 1600 he suffered his second and more dramatic breakdown, caving in under a combination of pressures, disappointments, and fears that had been eating away at him for a decade. The final straw was his intense anxiety about the turn of the seventeenth century. Rudolf was highly superstitious by nature; now he was gripped by the fear that he would die before the age of fifty, like his father, and, worse, fall victim to an assassination. Around the year 1600 the court astronomer Tycho Brahe had drawn up the emperor's astrological chart and prophesied that he would be plotted against by members of his own family — certainly a very plausible scenario, which would indeed come true — and perhaps be stabbed to death. As a consequence, Rudolf began to fear audiences and to avoid appearing in public. Yet he refused to delegate authority and insisted on continuing to make important decisions himself. Predictably, his ability to govern in this agitated condition suffered, and his grip on political power deteriorated.

In the next few months, feeling cornered, Rudolf lashed out in all directions, insulting, dismissing, and imprisoning his ministers and even his trusted associates. In a fit of uncontrollable rage, he banished from his court two of his closest advisers, Wolfgang Rumpf and Paul Sixt Trautson. He faulted Rumpf for his close links with Spain and his pressure on Rudolf to settle the issue of succession. Rudolf was in the grip of the most severe depression he had ever experienced. He spoke of abdication and apparently attempted suicide more than once. As confusion in his court worsened, Rudolf retreated from the world and remained out of view for two years. Many thought that he had died.

This new breakdown only gave ammunition to Rudolf's family and enemies, who had long been harping that his hatred of the Church and his dabbling in alchemy had made the emperor unfit to rule. They voiced their growing conviction that he was both a madman and a damned soul and schemed to depose him on the grounds of lack of succession and insanity. But it seems that

Rudolf thought he was actually healing his soul by shunning the world and spending his time in the company of artists, scholars, alchemists, and animals. The more he sank into melancholy, the more he apparently hoped that being surrounded by his exotic and marvelous pets and his natural history collection would ease his mental anguish. Through his menagerie and his *Kunstkammer*, Rudolf tried to create an alternate world where he could be well.

His other fellows in this private kingdom were, in fact, men who shared the emperor's interests in nature, science, and the occult. Rudolf's family was indignant that, hidden in the recesses of his palace, "His Majesty is interested only in wizards, alchemists, kabbalists and the like, sparing no expense to find all kinds of treasures, learn secrets and use scandalous ways of harming his enemies. . . . He also has a whole library of magical books. He strives all the time to eliminate God completely so that he may in future serve a different master." This was not how the Holy Roman Emperor was expected to behave. But while his critics were correct that Rudolf immersed himself in occult studies, this was not a sign of madness so much as a logical extension of his pursuit of natural history.

In this period of political and religious upheaval, alchemy had reached the height of its popularity. (The second half of the sixteenth century is considered "the golden age of alchemy.") In his treatise *Philosophical Colloquium* (1597), Alexander Lauterwald argued that the alchemist's true purpose was to heal all bodies, "human, animal and metallic," of the worldly corruption that followed the fall of Adam and Eve. So at its purest, alchemy was the sacred work of curing underlying spiritual ills. No wonder Rudolf pursued alchemy with such keenness that his court became an internationally renowned and preeminent center for magic and occult studies.

Alchemy also claimed to offer health benefits. When Lorenzo de' Medici's health was declining in 1492, his physicians treated him with a potion composed of ground gems (by today's standards

not the best therapy for the gout that eventually killed him). Lorenzo's court philosopher, Marsilio Ficino, explained that gems and precious metals could call down the favorable influences of the planets, for each celestial body was attracted to and acted through terrestrial matter. In his *Three Books on Life* (1489), Ficino outlined an entire program of mineralogical and astrological medicine best suited for the health of an intellectual and prescribed gold, gems, and other ingredients as potent curatives.

If you want your body and spirit to receive power from some member of the cosmos, say from the Sun, seek the things which above all are most Solar among metals and gems, still more among plants, and more yet among animals, especially human beings. . . . These must both be brought to bear externally and, so far as possible, taken internally, especially in the day and the hour of the Sun and while the Sun is dominant in a theme of heavens. Solar things are: all those gems and flowers which are called heliotrope because they turn towards the sun, likewise gold, chrysolite, carbuncle, myrrh, frankincense, musk, amber, balsam, yellow honey, sweet calamus, saffron, spikenard, cinnamon, aloe-wood and the rest of the spices; the ram, the hawk, the cock, the swan, the lion, the scarab beetle, the crocodile, and people who are blond, curly-haired, prone to baldness, and magnanimous.

Rudolf obsessively worried about his health (he suffered from digestive as well as mental problems) and about his longevity, so he looked to alchemy's medical promises with great hope.

Alchemy also had more tangible material applications. Much of Rudolf's wealth depended on the mineral riches of his territories. Bohemia, for example, was especially abundant in silver, tin, lead, and semiprecious stones. But the demands of courtly splendor and Rudolf's obsession with acquiring exotic animals were de-

pleting his coffers. At the same time, over the course of the previous century, the production of central Europe's mines had begun to stagnate. Because of the production slump, German and Bohemian rulers in particular sought ways to improve mining in their lands — their major source of income. Alchemical expertise could help extract precious metals from ores and increase yields. Besides, alchemists promised to multiply existing precious metals and to turn metals of lesser quality into gold or silver. Rudolf hoped to profit from this magic. He founded a new mining town named after himself (Rudolfov), fostered mining explorations, and supported the work of Lazarus Ercker, his main adviser on the exploitation of minerals. Ercker's treatise on assaying and smelting methods, published in Prague in 1574, became a landmark work on the subject.

So while the emperor seemed to his family to be wasting time and resources on useless indulgences, he believed that he was advancing science and industry in his realm, in part by personally engaging in scientific studies — apparently he invented a mechanical chart for travelers, actuated from beneath by a compass — but largely by sponsoring such investigations at his court. The same was true of the money and efforts he expended on building his menagerie and his *Kunstkammer*. By gathering examples of every kind of creation — *naturalia* (nature's inventions), *artificialia* (objects made by man), and *scientifica* (instruments of human knowledge) — Rudolf assembled the universe in microcosm, a theater of the world, as contemporaries called it.

According to theories of the time, there existed magical links between the microcosm and the macrocosm. Through the study of this variety of creation and of alchemy, Rudolf aspired to grasp the underlying unity, which could serve as a "key" to the harmony of the universe, much as physicists today continue to look for a "theory of everything." In a more personal sense, the objects and creatures Rudolf gathered were talismans that promised to

strengthen his control over the greater world, which was so precipitously slipping through his fingers.

At the same time, Rudolf turned his collection into a hands-on scientific laboratory for specialists invited to his court. Alsemus Boethius de Boodt, one of Rudolf's doctors and also his chief lapidary, wrote his book *Gemmarum et Lapidum Historia* (A History of Gems and Stones) (1609), largely based on his study of minerals in Rudolf's *Kunstkammer*. This book, considered to be "the most important lapidary of the seventeenth century" and reissued in some ten editions, covered 647 minerals. It offered a complete reclassification of stones, discussed the location of their deposits, treated their morphological characteristics, examined their virtues and powers, and addressed their medical applications. In the book's dedication, de Boodt praised Rudolf as a lover of stones "not simply in order that he may thereby augment his dignity and majesty . . . but so that in them the excellence of God may be contemplated, the ineffable might of Him Who is seen to press the beauty of the whole world into such exiguous bodies and include in them the powers of all other created things."

De Boodt also helped found the Bohemian crystal industry, worked on alchemical transmutations, studied botany and zoology, and produced a splendid album of drawings depicting birds and plants, again using Rudolf's collection. Among the creatures de Boodt illustrated (some of them wearing collars and thus presumably alive rather than stuffed) were a skunk, a coatimundi, and a llama — all New World pets in Rudolf's menagerie.

Rudolf's chief botanist, Carolus Clusius,\* also studied the emperor's collection of preserved animals and birds. Through careful observation he became the first to grasp the truth behind birds of paradise. These birds, with slender bodies and exquisite trailing plumes, were first discovered by the Spanish in the Spice Islands in 1519. They at once captured Europeans' imaginations,

in part because they were said to live always in the air, for they had no feet. This is how they got their name, which referred to the heavens rather than to the birds' tropical origins. This unlikely notion had arisen because for much of the sixteenth century, birds of paradise reached Europe as preserved, and modified, specimens. When in 1594 Clusius looked closely at the samples assembled by Rudolf, he realized that native traders had altered the beautiful birds by removing their feet and wings, presumably to give them a more striking and aerodynamic appearance.

Despite their spirit of scientific inquiry, Rudolf's scientists were sometimes misled by the more fabulous creatures in his collection. De Boodt described one illustration of a specimen from the *Kunstkammer* as "a Dragon which the Emperor Rudolf II has; dried it is this exact size, where it is preserved." Yet Rudolf and de Boodt were by no means out of step with developments in natural history in gathering and studying dragons. Gesner and Aldrovandi devoted lengthy discussions to their anatomical, etymological, and moral significance and distinguished between real and fake ones. Gesner described how certain apothecaries made fraudulent dragons from rays: "They bend the body, distort the head and mouth, and cut into and cut away other parts. They raise up the parts that remain and simulate wings, and invent other parts as well." De Boodt was not always so credulous. Examining the unicorn's horn in Rudolf's *Kunstkammer*, he concluded that the legendary unicorn did not exist, since the "unicorn horn" clearly came from a narwhal.

Rudolf promoted such research and engaged in it himself. "When our arduous tasks of government permit," he wrote to the Italian polymath Giovanni Battista della Porta, author of *Natural Magic* (which included observations on geology, optics, medicines, poisons, cooking, metallurgy, magnetism, perfumes, gunpowder, and invisible writing — a range of interests consonant with those of Rudolf), "we enjoy the subtle knowledge of natural and artificial things in which you excel." A Tuscan ambassador commented

\*He is credited with introducing the potato to Europe.

disapprovingly that "he himself [Rudolf] tries alchemical experiments, and he himself is busily engaged in making clocks, which is against the decorum of a prince. He had transferred his seat from the imperial throne to the workshop stool."

Although Rudolf was usually reclusive, he was always glad to display his collection to interested visitors and foreign dignitaries. When Cardinal Alessandro d'Este and Archduke Maximilian III came to Prague in 1604, the emperor eagerly took them on a tour of his menagerie, stables, and garden. During the visit of Elector Christian II of Saxony in July 1607, the only private audience he had with the emperor was spent visiting his collections. And the Venetian ambassador noted that because of Rudolf's interest in "the secrets of natural matter, as of artificial . . . he who has the chance to treat of these things will always find the ears of the emperor ready."

RUDOLF'S DARKEST YEARS as a ruler proved his most productive as a devotee of nature, alchemy, and science. His intellectual inquisitiveness and religious tolerance made Prague a beacon for scientists, scholars, and craftsmen. Karel van Mander, a Dutch painter and theorist who visited Prague in 1604 to study the emperor's superb art holdings, wrote admiringly, "Whosoever aspires today to do anything great need only come (if he can) to Prague, to the greatest patron of the contemporary world, the Emperor Rudolf II; he will see there, in the imperial residence . . . an extraordinary number of excellent and precious things, special, unusual and beyond price."

Among those who accepted Rudolf's invitation was Tycho Brahe, a renowned astronomer whose colorful personality rivaled Rudolf's own. Like Rudolf, Tycho was an animal lover. His pet of choice (before he came to Prague) was a moose that used to follow him around like a dog. One day it followed its master into a dining hall during a dinner party. Whether upon the urging of the

amused company or out of its own sense of mischief, the moose got its muzzle into a vat of beer. Unfortunately, it drank so much that on exiting the banquet, it fell down the stairs, broke a leg, and died from complications shortly thereafter.

Tycho had another unusual attribute: a false nose. As a twenty-year-old student at the University of Rostock in Germany, he had quarreled with another Danish nobleman at a dancing party at his professor's house. The two young men parted in anger at the end of the evening and picked up their fight again a few days later, deciding to settle their differences in a duel. Tycho's opponent turned out to be the better swordsman, and in one successful swipe sliced off much of Tycho's nose. Tycho, whose talents lay outside swordsmanship, drew on his alchemical skills to fashion a prosthesis from an alloy of gold, silver, and copper — probably to match the color of his flesh. He made and attached his new nose so skillfully that it looked nearly real, although he always carried around a small box of paste or glue to reattach it if it popped off.

It was for Tycho's scientific gifts, however, that Rudolf invited him to Prague. Tycho brought with him an array of instruments and records on celestial bodies, for he believed that the advancement of astronomy hinged on accurate observations. He not only designed and built his own equipment but regularly checked and calibrated it for precision, thus revolutionizing astronomical instrumentation. He also changed observational practice. Earlier astronomers had been content to view the positions of the planets and the moon only at certain important points of their orbits, but Tycho studied them throughout their orbits and made explicit a number of orbital anomalies never noticed before. He was also the first astronomer to make corrections for atmospheric refraction. Even more impressive was the fact that he accomplished all this before the invention of the telescope, relying only on rulers, quadrants, sextants, and armillary spheres.

Tycho came to Prague in 1599, at a time when the emperor was

sliding into one of his worst depressions. Although the troubled ruler shunned most other visitors, he greeted Tycho with open arms and bare head, as if the scientist were a fellow king. He offered the astronomer a salary of three thousand ducats per year, the largest at court, and put at his disposal the castle of Benatek, on the outskirts of Prague, to set up an observatory there. Rudolf also gave Tycho the Belvedere in the Royal Garden as his workspace so as to be able to visit the astronomer as often as he wished, ask Tycho to explain his instruments, and discuss experiments with him.

Rudolf was enthralled by Tycho's science and did not care in the least that he was a Protestant. But the Catholic faction at court viewed the astronomer as the emperor's "evil genius." So they may have gotten their wish when two years later, on October 13, 1601, Tycho attended a banquet at the house of a leading Bohemian nobleman. Tycho spent the evening eating and drinking heartily, but when nature called, he decided it would be impolite to leave the table to empty his bladder; he would wait until the dinner was over. Unfortunately, when he finally got home, he was unable to pass water. After five sleepless, agonizing nights, he finally produced bloody urine. Then followed more insomnia and fever. On the morning of October 24 he died after hours of delirium, during which he muttered, in Latin, "Ne frustra vixisse videar" (May I not seem to have lived in vain).

After Tycho's death, rumors began to circulate that he had been poisoned, given that both the Catholic council and the nobility had resented his influence over Rudolf. When an analysis of the astronomer's beard was conducted in the 1990s (his tomb had first been opened in 1901, revealing a male corpse with a nose opening rimmed with traces of copper), it showed that Tycho was, indeed, poisoned — but the poison was probably self-administered. As a practitioner of medical alchemy, Tycho concocted various drugs, including ones containing mercury, a common ingredient in curative potions in those days. Traces of mercury in Tycho's

beard suggest that shortly before attending the banquet, he probably took pills containing mercury to treat his enlarged prostate and the resultant urinary problems. It was the combination of mercury poisoning and uremia that killed him within those few miserable days.

Soon thereafter Rudolf appointed Tycho's assistant, Johannes Kepler, as imperial mathematician, the most prestigious mathematics position in Europe. For the next eleven years, until Rudolf's death, Kepler thrived under the emperor's patronage. In 1604 he published *Astronomia pars Optica* (The Optical Part of Astronomy), in which he discussed atmospheric refraction and lenses and gave the explanation still accepted today for the workings of the eye. Two years later he produced *De Stella Nova*, describing a new star, actually a supernova, that had appeared in 1604.

In 1609 Kepler's *Astronomia Nova* (New Astronomy) came out, introducing his first two laws: first, that planets move in elliptical orbits with the sun as one of the foci (a thesis he was able to demonstrate thanks to Tycho's accurate observations); second, that a planet sweeps out equal areas of an ellipse during equal intervals of time, meaning that the closer a planet comes to the sun, the faster it moves. Kepler's *Tabulae Rudolphinae* (Rudolfine Tables) — which used Tycho's observations on the planets and stars to catalog the positions of 1,005 stars and offered tables of refraction values — was published in 1627 and posthumously paid homage to the emperor's enlightened support. Perhaps only someone like Rudolf — only a patron who was literally crazy about science — could have provided the means for all of these discoveries and momentous advances in knowledge. By giving his scientists free rein to pursue their research, Rudolf fostered a remarkably creative environment at his court and turned Prague into the intellectual capital of Europe.

When, in 1610, Kepler received news of Galileo's newly devised telescope, Rudolf wanted to learn all about the Italian astronomer's findings: irregularities on the surface of the moon, numerous new



stars, and the satellites of Jupiter. It was another sign of the emperor's religious tolerance and broader vision that he embraced the work of Galileo despite the fact that the astronomer was condemned by the Catholic Church. Rudolf suggested that Kepler use instruments from his *Kunstammer* to take these investigations further. Meanwhile, Galileo sent one of his telescopes to Prague. Thanks to these instruments and Rudolf's benefaction, Kepler published *Narratio de Observatis Quatuor Jovis Satellitibus* (Narration About Four Satellites of Jupiter Observed). Rudolf, Kepler wrote appreciatively, was endowed with the same restless spirit of seeking out nature that Galileo possessed.

The English philosopher Francis Bacon suggested in his *Gesta Grayorum*, presented at the English court during the twelve days of Christmas in 1594, that to achieve greatness, a ruler must engage in the conquest of nature, "the searching out, inventing, and discovering of all whatsoever is hid and secret in the world."

Those kingdoms were accounted most happy, that had rulers most addicted to philosophy. . . . And to this purpose I will commend to Your Highness [the English king] four principal works and monuments to yourself: First, the collecting of a most perfect and general library. . . . Next, a spacious, wonderful garden, wherein whatsoever plant the sun of divers climates, out of the earth of divers molds, either wild or by culture of man brought forth. . . . This garden to be built about with rooms to stable in all rare beasts and to cage in all rare birds; with two lakes adjoining, the one of fresh water the other of salt, for like variety of fishes. And so you may have in small compass a model of universal nature made private. The third, a goodly huge cabinet, wherein whatsoever the hand of man by exquisite art or engine hath made rare in stuff, form, or motion; whatsoever singularity chance and the shuffle of things hath produced; whatsoever Nature hath wrought in things that want life and may be kept; shall be sorted and included. The

fourth such a still-house, so furnished with mills, instruments, furnaces, and vessels, as may be a palace fit for a philosopher's stone.

Although Rudolf had already put into effect just such an all-encompassing program, it seemed to rob him of his rule rather than enhance it. The protracted and indecisive Ottoman war had drained his finances and prompted his Hungarian subjects, who bore the brunt of the conflict, to revolt in 1604. The next year Rudolf's family stepped in and forced him to cede Hungarian affairs to his ambitious younger brother Matthias, who had become the candidate for succession after Ernest died in 1595.

There was little affection between the two siblings. Matthias, unlike Rudolf, had not been sent to Spain and had grown into a decisive, ambitious, and manipulative man who schemed for years to unseat his older brother and take his place on the imperial throne. Matthias was also politically savvy and saw that bringing the Ottoman and Hungarian conflicts to a close would help consolidate his power. In 1606, accomplishing what Rudolf had not been able to do, he laboriously concluded peace first with the Hungarian rebels and then with the Turks. At the same time, alarmed by Rudolf's growing detachment and incompetence, as well as his failure to guarantee succession, Rudolf's brothers and cousins began to speak about deposing him. On April 25, 1606, they met secretly in Vienna and recognized Matthias as the de facto head of the house of Habsburg.

Even as Matthias was moving to seize power, Rudolf, trapped in the enormous gap between the glorious ideal of his title and the sordid reality of family rivalries, was plunged into another depression and again disappeared from public view. Seemingly lost to the world, he focused more than ever on his natural history collection and on giving his *Kunstammer* a new splendid shape. Up to now his specimens, instruments, and artifacts had been spread throughout the palace, but in 1605 Rudolf began to move

them into a newly constructed series of rooms consisting of three vaulted antechambers, each measuring 65 by 18 feet, and a main hall some 98 by 18 feet.

The rooms were illuminated by large windows on their western sides and crowded everywhere else with cupboards, chests, and tables. Globes and clocks, sculptures and precious vessels, antlers and stuffed animals congregated on every available surface. The cupboards contained the embalmed, dried, and partial specimens of animals, birds, insects, and crustaceans, as well as shells, pieces of corals, and minerals. Chests housed the emperor's scientific instruments and clever mechanical toys — such as a peacock that walked, turned around, and fanned its tail made of real feathers, and a large gold spider that could be wound up and sent scurrying across the table. Small statuettes, works in gold and silver, carved gems, and ivories rested in their own cabinets, as did Rudolf's books and illustrations of fauna and flora.

In the middle of the main hall of the *Kunstkammer* stood a long table covered with green cloth on which were disposed various natural history objects and instruments. Here Rudolf would sit and study for hours. As the ambassador of the Duke of Savoy, Carlo Francesco Manfredi, reported home, Rudolf spent "two and a half hours sitting motionless, looking at the painting of fruit and fish markets sent by Your Highness." Were Rudolf's relatives right, and was he indeed mad to stare at one image for so long? Or was such focus a sign of passionate absorption in objects that brought him knowledge and joy? His collection, both inside the *Kunstkammer* and outside in his menagerie and aviaries, was his refuge and a source of unceasing pleasure, the one kingdom that never disappointed or failed him.

Outside the *Kunstkammer* and the Royal Garden, however, Rudolf's world continued to disintegrate. Appalled by Matthias's negotiations with the Ottomans, the emperor wanted to renew the Turkish war. Matthias moved faster. Rallying support among

the disaffected Hungarians, and promising religious and political concessions to them as well as to the emperor's subjects in Austria and Moravia, Matthias received their assistance and marched on Prague at the head of a large army in the summer of 1608. Rudolf, cornered, was forced to cede Austria, Hungary, and Moravia to his hated brother. He was left only Bohemia, Tyrol, and the increasingly meaningless imperial title.

At least for the time being, his Bohemian subjects remained loyal, though for a price. Taking advantage of the emperor's political and mental weakness, they compelled him to issue, on July 9, 1609, a "Letter of Majesty" that gave the Protestants official permission to freely exercise their religion, construct churches and schools, control the university, and compose a constitution governing their rights. Although Rudolf had been a tolerant ruler, he had so far done his best to walk a middle road between the Catholics and Protestants, and this dispensation, larger than he felt comfortable with, underscored his decline.

In 1611 Rudolf attempted one last time to regain his power. He urged his chosen successor, his cousin Archduke Leopold V, bishop of Passau, to come to Prague with an army to restore his authority and oust Matthias, who had confined him to the city. Leopold complied, but as he marched through southern Bohemia, his army pillaged the countryside. And when his forces reached Prague, they devastated the New City but failed to turn out Matthias. This botched intervention only further discredited Rudolf. His Bohemian subjects now appealed to Matthias to defend them, and he was pleased to oblige. Taking Rudolf as a virtual prisoner, he forced him to yield the crown of Bohemia in May 1611. For the next nine months, the last of his life, Rudolf dwelled as a ghost in his own home. A contemporary portrait shows the pudgy emperor with a bushy beard concealing the Habsburg jaw and bags under his deep-set eyes, which look wearily and sadly out of the darkness of the picture. His personal

physician, Johannes Pistorius, commented that the emperor was melancholic and that there were many malevolent types around him taking advantage of his condition to make things worse.

Even in these last miserable years, when he was widely reputed to be mentally imbalanced and unapproachable, apathetic yet extremely stubborn, Rudolf continued to win over visitors to his court. Daniel Eremita, who came to Prague as part of the Tuscan embassy in 1609, was irritated by the delay before the reclusive emperor would receive even such a high-ranking delegation and remarked on his evidently failing powers. But he wrote admiringly that "the Emperor's amazing knowledge of all things, his ripe judgment, and skill have made him famous, while his friendliness, steadfastness in religion, and moral integrity have won him popularity; these were the principles of his outstanding and remarkable reign which gained the plaudits of the whole world."

In the opinion of his detractors, Rudolf had ruined everything by taking up the study of arts and nature with such a lack of moderation that he deserted the affairs of state for alchemists' laboratories, painters' studios, clockmakers' workshops, and animal enclosures. "Disturbed in his mind by some ailment of melancholy, he had begun to love solitude and shut himself off in his Palace as if behind the bars of a prison," lamented Eremita. The result was administrative chaos. Yet when Rudolf died from edema on January 20, 1612, the people of Prague mourned "der gute Herr" (the good lord), whose reign had brought to Prague a golden age. While Rudolf's temporal reign fell far short of success, his intellectual pursuits lived up to a princely ideal that few rulers managed to attain.

SHORTLY BEFORE HIS final showdown with Matthias, Rudolf began to inventory his vast holdings of *naturalia*, *artificialia*, and *scientifica*. This process, which started in 1607, continued for four

years because his *Kunstkammer* was so huge in scope, variety, and importance. Truly it was the entire world in one place.

The richest and most significant portion of the collection were his specimens of *naturalia* (and the inventory did not even include the live beasts). In addition to the more familiar animals and those already mentioned, there were stuffed lorises (lemur-like animals from Asia) and various African and South American monkeys, including the first (dead) colobus brought to Europe from Ethiopia. A black-crowned crane from South Africa looked very elegant with its white-tipped wings and a golden crown of feathers atop its head. The splendid red-billed toucan — a black bird with a white throat and a massive red bill with black and yellow stripes at its base — was represented by six beaks. The stuffed African penguin, about 27½ inches long and weighing from 4¼ to 6½ pounds, came from South Africa, where its habitat coincided with the cold, nutrient-rich Benguela Current. The inventory described it as "skin of duck of Magellan which walks upright on two feet like a man; the bird is black and white and has very curious wings, without true plumage."

Rudolf's marine specimens encompassed red and black coral, various shells, crabs and lobsters, blowfish, Norwegian basket stars (starfish with heavily branched arms that look like intricate tree roots), walking batfish from off the coasts of Brazil and Florida, and flying fish with enlarged winglike fins used for brief gliding flights several feet above the water.\* And then there were marvelous insects, including a leaf insect from Southeast Asia, which has the color and shape of an old leaf with slightly browning and curling edges, and a South American cricket with jasper wings.

Rudolf also had an extensive collection of ethnographic arti-

\*A Fugger agent sailing from Lisbon to India recorded that "I have seen many kinds of fish, whereof there would be much to write, especially of those that fly above the sea and have wings. This many will not wish to believe, but I have seen them a thousand times fly as near as the musket will carry."

facts from China, India, Siam (Thailand), Persia, Turkey, Egypt, and the New World (including Mexican feather pictures depicting Christian saints). And there was a section devoted to weapons, from superbly wrought Turkish swords captured in battle with the Ottomans to a dagger that supposedly was the one used to murder Julius Caesar in 44 BC. The inventory of the *Kunstammer* described these objects with much care, giving their dimensions and explaining the techniques of their manufacture and decoration.

With Rudolf's demise, his collection quickly scattered. Just prior to his end, when he had lost his power and apparently his ability to care properly for his animals, the inventory of live beasts in the Lion's Court listed only one lion, two tigers, one bear, and two wildcats. There may have been some other creatures left elsewhere in the Royal Garden and the aviaries, but the menagerie was clearly at its nadir. Meanwhile, Matthias secretly began to move to Vienna the most valuable items from his brother's collection — primarily artwork and objects made from precious materials. (The Venetian envoy Girolamo Soranzo estimated that there were more than three thousand paintings alone. The other treasures were valued at seventeen million ducats — more than the entire Spanish royal budget in 1628.)

The Bohemian estates clamored for part of these assets, since they had helped pay for them, and a great deal more was dispersed when Prague was invaded by Swedish troops in 1648 at the end of the Thirty Years' War.\* Ironically, this war, which would rage throughout Europe for a generation, was sparked on the very grounds of the Prague Castle on May 23, 1618. On that day the Catholic lieutenant governors serving the new Habsburg king, Ferdinand II (Matthias's successor) were hurled out of the windows

of their offices by Protestant Bohemian nobles. The religious tolerance and peace that Rudolf had tried to preserve during his reign came to naught shortly after his death.

The surviving inventory of the *Kunstammer* is the only testament to the once astonishing, marvelous, and inspiring world that Rudolf had created in Prague. Alas, the hundreds of lines of German script give us some idea of the *Kunstammer* but do not bring it to life. There remains, however, one piece of the emperor's collection that still seems to breathe: the *Museum of Rudolf II*.

As if sensing that his *Kunstammer* would vanish with his death, Rudolf ordered his court artists to produce a pictorial record of his beloved creatures, both live and preserved. The *Museum* consists of two large volumes, measuring more than 16 by 12 inches and containing 179 illustrated parchment folios. On their pages passes a parade of Rudolf's mammals and birds, reptiles and fish, insects and corals, and noteworthy animal parts. Here is the horn of the rhinoceros that Hans Khevenhüller spent almost thirty years trying to procure for the emperor; the tusk that de Boodt correctly identified as belonging to a narwhal rather than a unicorn; the skin of a hippopotamus with its head and teeth attached, draped over a dowel on which it hung from the ceiling of the *Kunstammer*. Aside from these fragments, redolent with history, most of the other animals appear still alive and full of spirit. They are as mesmerizing now as they were to Rudolf when he strolled past their enclosures in the Royal Garden or pored over their remains in the *Kunstammer*. And something of the emperor's own spirit lingers in the few images of *naturalia* arranged on the green cloth table at which Rudolf spent his days seeking to unlock the mysteries of the universe.

\*This conflict swept central Europe from 1618 to 1648, pitting the German Protestant princes and a number of foreign powers against the Holy Roman Empire and its Catholic allies, and causing massive death and destruction.

- Trexler, Richard C. *Public Life in Renaissance Florence*. New York: Academic Press, 1986.
- Wansbrough, John. "A Mamluk Commercial Treaty Concluded with the Republic of Florence 804/1489." In *Documents from Islamic Chanceries*, edited by Samuel Miklos Stern, 37–79. Cambridge: Harvard University Press, 1965.
- Four: Human Animals in the New World and Old**
- Anawalt, Patricia Rieff. "Understanding Aztec Human Sacrifice." *Archaeology* 35, no. 5 (1982): 38–45.
- Berdan, Frances F., and Patricia Rieff Anawalt. *The Codex Mendoza*. Berkeley: University of California Press, 1992.
- Campbell, Mary B. *The Witness and the Other World: Exotic European Travel Writing, 400–1600*. Ithaca, NY: Cornell University Press, 1988.
- Chiappelli, Fredi, ed. *First Images of America: The Impact of the New World on the Old*. Vol. 1. Berkeley: University of California Press, 1976.
- Cline, Howard F. "Hernando Cortes and the Aztec Indians in Spain." *Quarterly Journal of the Library of Congress* 26 (1969): 70–90.
- Cortés, Hernán. *Letters from Mexico*. Translated and edited by Anthony Pagden. New Haven: Yale Nota Bene, 1986.
- Díaz del Castillo, Bernal. *The Discovery and Conquest of Mexico, 1517–1521*. Edited by Genaro García, translated by A. P. Maudslay. New York: Farrar, Straus and Cadahy, 1956.
- Durán, Fray Diego. *The History of the Indies of New Spain*. Translated and annotated by Doris Heyden. Norman: University of Oklahoma Press, 1994.
- Evans, Susan Toby. "Aztec Royal Pleasure Parks: Conspicuous Consumption and Elite Status Rivalry." *Studies in the History of Gardens and Designed Landscapes* 20 (2000): 206–28.
- Fuentes, Patricia de, trans. and ed. *The Conquistadors: First-Person Accounts of the Conquest of Mexico*. New York: Orion Press, 1963.
- Gómara, Francisco López de. *Cortés: The Life of the Conqueror by His Secretary*. Translated and edited by Lesley Byrd Simpson. Berkeley: University of California Press, 1964.
- Greenblatt, Stephen. *Marvelous Possessions. The Wonder of the New World*. Chicago: University of Chicago Press, 1991.
- Hampe, Theodor. *Das Trachtenbuch des Christoph Weiditz*. Berlin: Verlag von Walter de Gruyter, 1927.
- Hanke, Lewis. "Pope Paul III and the American Indians." *Harvard Theological Review* 30 (1937): 65–102.
- Hassig, Ross. *Trade, Tribute, and Transportation: The Sixteenth-Century Political Economy of the Valley of Mexico*. Norman: University of Oklahoma Press, 1985.
- Honour, Hugh. *The European Vision of America*. Cleveland: Cleveland Museum of Art, 1975.
- . *The New Golden Land: European Images of America from the Discoveries to the Present Time*. New York: Pantheon Books, 1975.

- Keen, Benjamin. *The Aztec Image in Western Thought*. New Brunswick, NJ: Rutgers University Press, 1971.
- Las Casas, Bartolomé de. *A Short Account of the Destruction of the Indies*. Translated and edited by Nigel Griffin. Harmondsworth: Penguin, 1992.
- Leon-Portilla, Miguel, ed. *The Broken Spears: The Aztec Account of the Conquest of Mexico*. Boston: Beacon Press, 1992.
- Nicholson, Henry B. "Montezuma's Zoo." *Pacific Discovery* 8, no. 4 (1955): 3–11.
- Prescott, William H. *History of the Conquest of Mexico*. New York: Modern Library, 1908.
- Riley, Michael G. "Fernando Cortés and the Cuernavaca Encomendas, 1522–1547." *The Americas* 25 (1968): 3–24.
- Rothfels, Nigel. *Savages and Beasts: The Birth of the Modern Zoo*. Baltimore: Johns Hopkins University Press, 2002.
- Sahagún, Bernardino de. *Florentine Codex: General History of the Things of New Spain*. Translated by Arthur J. O. Anderson and Charles E. Dibble. Santa Fe, NM: School of American Research, 1970.
- Smith, Michael E. *The Aztecs*. Oxford: Blackwell, 1996.
- Solari, Amara L. "'Lords of All Created Things': Aztec Political Ideology in the Collections of Motecuhzoma II." Master's thesis, University of Santa Barbara, 2003.
- Soustelle, Jacques. *Daily Life of the Aztecs*. New York: Dover, 1962.
- Sturtevant, William C., and David B. Quinn. "This New Prey: Eskimos in Europe in 1567, 1576, and 1577." In *Indians and Europe*, edited by Christian F. Feest, 61–140. Aachen: Edition Herodot, 1987.
- Thomas, Hugh. *Conquest: Montezuma, Cortes, and the Fall of Old Mexico*. New York: Simon & Schuster, 1993.
- Townsend, Richard F. *The Aztecs*. London: Thames & Hudson, 1992.
- Five: Rudolf II's Empire of Knowledge**
- Bacon, Francis. *Francis Bacon: The Major Works*. Edited by Brian Vickers. Oxford: Oxford University Press, 1996.
- Bauer, Rotraud, and Herbert Haupt. "Das Kunstkammerinventar Kaiser Rudolfs II, 1607–1611." *Jahrbuch der Kunsthistorischen Sammlungen in Wien* 72 (1976).
- Bennett, Jim, and Scott Mandelbrote, eds. *The Garden, the Ark, the Tower, the Temple: Biblical Metaphors of Knowledge in Early Modern Europe*. Oxford: Museum of the History of Science and Bodleian Library, 1998.
- Charles, Prince of Schwarzenberg, et al. *The Prague Castle and Its Treasures*. New York: Vendome Press, 1994.
- Evans, Robert John Weston. *Rudolf II and His World*. Oxford: Clarendon Press, 1973.
- Faber Kolb, Arianne. *Jan Brueghel the Elder: The Entry of the Animals into Noah's Ark*. Los Angeles: J. Paul Getty Museum, 2004.
- Findlen, Paula. *Possessing Nature*. Berkeley: University of California Press, 1994.

- Fučíková, E. "The Collection of Rudolf II." In *The Origins of Museums. The Cabinet of Curiosities in Sixteenth- and Seventeenth-Century Europe*, edited by Oliver Impey and Neil MacGregor, 47–53. Oxford: Clarendon Press, 1985.
- Fučíková, Eliska, ed., et al. *Rudolf II and Prague: The Court and the City*. Prague: Prague Castle Administration; London: Thames & Hudson, 1997.
- Gorgas, Michael. "Animal Trade Between India and Western Eurasia in the Sixteenth Century — the Role of the Fuggers in Animal Trading." In *Indo-Portuguese Trade and the Fuggers of Germany: Sixteenth Century*, edited by Kuzhippalli Skaria Mathew, 195–225. New Delhi: Manohar, 1997.
- Haupt, Herbert et al., eds. *Le Bestiaire de Rudolf II. Cod. Min. 129 et 130 de la Bibliothèque nationale d'Autriche*. Paris: Citadelles, 1990.
- Hendrix, Lee. "Of Hirsutes and Insects: Joris Hoefnagel and the Art of the Wondrous." *Word & Image* 11 (1995): 373–90.
- Hoeninger, E. David. "How Plants and Animals Were Studied in the Mid-Sixteenth Century." In *Science and the Arts in the Renaissance*, edited by John W. Shirley and E. David Hoeninger, 130–48. Washington, DC: Folger Shakespeare Library, London: Associated University Presses, 1985.
- Kaufmann, Thomas DaCosta. *The Mastery of Nature: Aspects of Art, Science, and Humanism in the Renaissance*. Princeton, NJ: Princeton University Press, 1993.
- . "Remarks on the Collection of Rudolf II. The *Kunstkammer* as a Form of Representation." *Art Journal* 38 (1978): 22–28.
- . "Variations on the Imperial Theme in the Age of Maximilian II and Rudolf II." PhD diss., Harvard University, 1977.
- Kenseth, Joy, ed. *The Age of the Marvelous*. Hanover, NH: Hood Museum of Art, Dartmouth College, 1991.
- Klarwill, Victor von, ed. *The Fugger Newsletters*. New York: G. P. Putnam's Sons, 1925.
- Ley, Willy. *Dawn of Zoology*. Englewood Cliffs, NJ: Prentice Hall, 1968.
- Maselis, Marie-Christiane et al., eds. *The Albums of Anselmus de Boodt (1550–1632): Natural History Painting at the Court of Rudolph II in Prague*. Tiel, Belg.: Lannoo, 1999.
- Matthews, George T., ed. *News and Rumor in Renaissance Europe: The Fugger Newsletters*. New York: Capricorn Books, 1959.
- Moryson, Fynes. *An Itinerary Containing His Ten Yeeres Travell Through the Twelve Dominions of Germany, Bohmerland, Sweitzerland, Netherland, Denmarke, Poland, Italy, Turkey, France, England, Scotland & Ireland*. Glasgow: J. MacLachose, 1907–8.
- Prag um 1600: Kunst und Kultur am Hofe Rudolfs II.* Freren, Germany: Luca Verlag, 1988.
- Smith, Pamela H., and Paula Findlen, eds. *Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe*. New York: Routledge, 2002.
- Spicer-Durham, Joaneath Ann. "Drawings of Roelandt Savery." PhD diss., Yale University, 1979.

- Six: *The Black Swans of Malmaison*
- "Ancien Moniteur." *Réimpression de l'ancien Moniteur, depuis la réunion des Etats-généraux jusqu'au Consulat (mai 1789–novembre 1799)*. Vol. 29. Paris: Au Nureau Central, 1843: 322–24.
- Andia, Béatrice de, et al. *Fêtes et Révolution*. Paris: Imprimerie Alençonnaise, 1989.
- Baudin, Nicolas. *The Journal of Post-Captain Nicolas Baudin, Commander-in-Chief of the Corvettes Géographe and Naturaliste*. Translated by Christine Cornell. Adelaide: Libraries Board of Australia, 1974.
- Bonnemains, Jacqueline. "Les artistes du 'Voyage aux Terres Australes' (1800–1804)." Charles-Alexander Lesueur et Nicolas-Martin Petit." *Bulletin trimestriel de la Société Géologique de Normandie et des Amis du Muséum du Havre* 76 (1989): 9–55.
- Bonnemains, Jacqueline, Elliott Forsyth, and Bernard Smith. *Baudin in Australian Waters: The Artwork of the French Voyage of Discovery to the Southern Lands, 1800–1804*. Melbourne: Oxford University Press, 1988.
- Brown, Anthony J. *Ill Starred Captains: Flinders and Baudin*. Adelaide: Crawford House Publishers, 2000.
- Burkhardt, Richard W., Jr. "Unpacking Baudin: Models of Scientific Practice in the Age of Lamarck." In *Jean-Baptiste Lamarck, 1744–1829*, edited by Goulyen Laurent, 497–513. Paris: Editions du CTHS, 1997.
- Chateaubriand, François-René. *The Memoirs of Chateaubriand*. Translated by Robert Baldick. Harmondsworth: Penguin, 1965.
- Chevallier, Bernard. "Malmaison: An Imperial Country House." *Antiques* 143/4 (1993): 572–83.
- DeLorme, Eleanor P. *Josephine: Napoleon's Incomparable Empress*. New York: Harry N. Abrams, 2002.
- Gucheteau, Thierry, and Jean-Pierre Kerneis. "Medical Aspects of the Voyages of Exploration, with Particular Reference to Baudin's Expedition, 1800–1804." In *European Voyaging Toward Australia*, edited by John Hardy and Alan Frost, 67–69. Canberra: Highland Press and Australian Academy of the Humanities, 1990.
- Henn, P. L. "French Exploration on the Western Australian Coast." *Journal and Proceedings of the Western Australian Historical Society* 2 (1934): 1–21.
- Hoage, R. J., and William A. Deiss, eds. *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*. Baltimore: Johns Hopkins University Press, 1996.
- Homer, Frank. *The French Reconnaissance: Baudin in Australia, 1801–1803*. Victoria: Melbourne University Press, 1987.
- Hubert, Gérard. *Malmaison, le château et son histoire, les appartements et collections, Bois-Préau*. Paris: Edition L'indispensable, 1997.
- L'Impératrice Joséphine et les Sciences Naturelles*. Paris: Réunion des Musées Nationaux, 1997.
- Jill, Duchess of Hamilton. *Napoleon, the Empress and the Artist*. East Roseville, Australia: Kangaroo Press, 1999.

now that Philadelphos possessed his own source of these animal tanks.

After the elephants came *bigae* (two-horse chariots) drawn by goats, saiga antelopes (hump-nosed ruminants from the Urals), oryx with their bright white bodies and horns rising like tall spears, swift hartebeests (hump-shouldered fawns with long, narrow faces), and ostriches. Behind them still more African, Ethiopian, Arabian, Syrian, and Persian beasts drew chariots — all of them driven by boys dressed as chariotcers and girls armed with lances and shields.

No animal array of such diversity had ever been seen in Alexandria or in any other Greek city. Some spectators gawked in wonder. Others recalled Aristotle's learned descriptions of strange beasts dwelling in distant lands and marveled at how far Philadelphos's power had spread. But they could not ponder any species for long, as more and more animals and other prized goods streamed past, trumpeting yet another conquest of land, commerce, and diplomacy. There were *bigae* drawn by camels, as well as carts carrying Indian women, other exotic foreigners, and prisoners huddled under colorful tents. There were further carts loaded with hundreds of pounds of frankincense and myrrh, saffron and cassia, cinnamon and orris, and many other spices from Arabia and India — brought to Alexandria to be turned into the finest ointments, perfumes, and cosmetics and then shipped to clients across the sea. Next marched Ethiopian tribute bearers, walking slowly, bent low under the weight of six hundred elephant tusks, two thousand ebony logs, and dozens of large vessels full of gold — testaments to Philadelphos's expansion down the Trogodyte coast and into Meroë.

As a coda, trainers led one large white bear — either a Thracian variety or an albino from Syria — fourteen leopards, nine cheetahs, four caracals, and two marvels: a giraffe (an animal unknown

Both of these strange beasts had been shipped from Meroë, and they made an indelible impression on the onlookers. The Jewish scholars translating the Torah at the Museum included the giraffe in Deuteronomy 14 among the beasts that can be safely eaten by Jews. The animal does not appear in the non-Greek version of this text.

In the days after the Dionysian procession, statues of the deified Ptolemy I and Alexander the Great, borne by quadrigae of elephants, were paraded through the city, honoring the men who had made Philadelphos's kingdom possible. There were also celebrations of Zeus and other Olympian gods. And it took an entire day for Philadelphos's army — some 57,000 infantry, 23,000 cavalry, and massive quantities of military hardware bought with the new gold — to pass before the spectators, leaving them in no doubt of the king's readiness for war.

It seems incredible that Philadelphos could have amassed so much, especially so many elephants, in so short a time — from the moment he took the throne in 282 BC to the celebration of the Ptolemaia in 275 BC. Yet here they were, nearly one hundred beasts marching before the astonished spectators, plus everything that followed in their wake. Determined to defend and extend his kingdom in the face of various enemies, Philadelphos had moved with efficiency and determination, opportunism and vision. In the process of building a corps of his animal warriors, he had made his kingdom far richer and stronger than it had been when he had received it from his father. And now he was informing Antiochos that he also had his own potentially vast supply of African elephants. The former imbalance of power had been redressed.

LATER THAT YEAR Philadelphos marched east, to wrestle

without further liquid for about ten days. Besides, the beast yielded a variety of useful products. Female camels could furnish milk for humans to consume along the way. Camel hair was spun into cloth and rope. Its skin served for saddlebags, sandals, and water buckets, and its dried dung made good cooking fuel in the treeless desert. The animal was the most versatile moving system one could desire in that climate and geography. Recognizing its importance to the commerce of his kingdom, Philadelphos began to import camels through his Arabian trading contacts.

The journey of camel and elephant caravans from Berenike to Coptos, a stretch of some 265 miles, took twelve days. Men and beasts traveled during the night to avoid the extreme heat. In the daytime they rested at protected watering stations, called *hydremata*, and were happy for water, shelter, and some sleep. The hunters were also pleased to be returning home. At El-Kanayis, the penultimate *hydremma* on the road from Berenike to Edfu, a man named Dorion recorded his return with a picture of an elephant carved on a rock. Once at the Nile, men and beasts boarded riverboats and sailed north to Memphis. Since the chief purpose of the elephants was to serve in the Syrian war, it was best to keep most of them at the royal depot there. From Memphis they could reach Egypt's eastern border and Syria much faster than if they were to march from Alexandria across the full width of the delta and its network of waterways.

A MAN WITH a less agile mind might have stopped at procuring gold and war elephants and expanding his trade networks. But Philadelphos, as ancient writers note, was driven by grander ambitions and by curiosity. As a highly educated Greek nobleman, he valued learning, both as a political tool and as a goal in itself. Even as his elephant hunts were going on, he began building on the achievements of his father, Ptolemy I, to transform

Alexandria into a preeminent research institution, usurping cultural leadership from Athens.

Philadelphos wanted the Museum scholars to carry out studies in all areas of knowledge. Thus Euclid, whose *Elements* would remain the standard textbook of elementary mathematics for two thousand years, worked and taught in Alexandria. The renowned engineer Ktesibios (a local barber's son), also thrived under Philadelphos's patronage. He was the first to make devices operated by pneumatics, constructing the first accurate water clock and a water organ, marvelous automata (self-propelled mechanical devices) for the king's festivals, and war catapults for his military campaigns. Meanwhile, the physician Herophilos performed dissections on cadavers to unlock the secrets of the brain, which he saw as the organ of the soul (while his contemporaries believed the soul was in the heart or liver), and studied the eye, liver, and sexual organs. He also discovered the nerves and the rhythm of the pulse, and in his medical practice he devoted careful attention to diagnostics and the use of drugs, diet, and exercise. Straton, Philadelphos's chief tutor, wrote books on ethics and logic, cosmology and psychology, and physics and zoology. He argued that the processes of nature must be explained by natural causes rather than by the actions of the gods. And Philadelphos himself composed a treatise on trees.

At the same time, a contingent of literary scholars at the Museum studied, analyzed, and preserved for posterity the body of Greek literature and that of other cultures. Philadelphos invited foreign philologists to his court, including a group of religious scholars from Jerusalem, who came to Alexandria to translate the Torah into Greek for the Library. The king and his successors were so intent on gathering all of the world's extant books that they not only scouted the major book markets at Athens and Rhodes, but they also engaged in book piracy. They would



documents mention trackers who located the animals, hunters who captured bears and lions, and veterinarians who cared for the army's horses and baggage animals, as well as for captive exotic beasts.

Transporting wild creatures from distant provinces to Rome was another complicated business. Here the Roman fleet came into play. Merchant galleys, which served as both cargo vessels and men-of-war, depending on circumstances, were one means of conveyance. Transport ships for ferrying army horses, called *hippagoi* — with a large hull in the back and a flat bottom — were another. Ferocious beasts were brought on board and kept in cages for the duration of the journey. Larger or calmer animals were secured on deck by ropes or chains attached to their feet. Pliny the Elder reports a charming anecdote about disembarking the elephants at the southern Italian port of Puteoli (modern Pozzuoli). The animals got frightened by the length of the gangway stretching from the boat to the shore, so of their own accord, they turned around and crossed it backward to cheat themselves in their estimation of the distance.

Animals destined for Rome were disembarked at Ostia, the closest port to the capital. Here the cages and loose animals were transferred to flat-bottomed boats that went up the Tiber River. On reaching Rome the cages were stacked at the docks until the appropriate officials came to collect them. Pliny mentions that the sculptor Pasiteles was once so absorbed in studying an African lion at the docks, peering at it so as to depict the creature most accurately, that he nearly lost his life when a leopard burst out of a nearby cage.

Even if they arrived in good time and decent shape, unhindered and undamaged by storms at sea, exotic beasts required proper care and feeding to perform in the games. Symmachus, a consul who staged opulent animal hunts in AD 391, had imported

freedom? When the appointed day arrived, the crocodiles had little pluck left in them. Emaciated, they had to be dispatched in a hurry, before they expired on their own from the stress of being dragged into the arena and attacked by armed men. The spectators could hardly have been pleased with the show.

Despite such challenges, Pompey managed the logistics of organizing his games with the same military discipline and administrative savvy he had employed in conquering and resettling the pirates and subjugating the East. And he outdid his predecessors by a wide margin. Sulla had created a sensation in 93 BC when he had displayed 100 lions. Pompey imported 600. In 58 BC the extravagant aedile Marcus Scaurus had exhibited 150 female leopards for the first time in Rome. Pompey ordered 400 for his show, as well as 20 elephants. He also took care to procure animals the Romans had never before seen in the arena. There were Ethiopian baboons, which Pliny described as having "hind feet resembling the feet of a man and legs and forefeet like hands" and as being extremely ferocious. The Gallic lynx, "with the shape of a wolf and leopard's spots," according to Pliny, was also a novel creature. So was the rhinoceros, which would become a favorite in Rome, bred to fight elephants by slicing their stomachs with its sharp horn.

That he was able to assemble such a spectacular array of exotic animals reflected Pompey's far-flung influence and command. Despite his political problems at home, he was able to call in favors and obligations from his numerous clients across the ancient world. In Africa he could rely on the Numidian king Hiempsal, whom he had put on the throne. In Egypt king Ptolemy Auletes was in Pompey's debt for his restoration to power. Having conquered Pontus, Armenia, the Caucasus, and Syria, Pompey could request rare beasts from rulers in these lands. He probably obtained his 600 lions from Africa, Arabia, Syria, and Mesopotamia;

common and thus not enumerated by eyewitnesses and historians. In any event, this was undeniably the largest wild beast hunt yet staged in Rome. Would the magnificent games restore Pompey to his former glory?

IN LATE SEPTEMBER and early October 55 BC, Rome was more crowded, noisier, and smellier than ever. The city was packed with people who had come from all over Italy and the provinces to attend Pompey's festivities. There were many entertainments on offer, some in the Circus Maximus, others in Pompey's newly built theater.

Shortly after his return from the East, Pompey had begun to build the first permanent theater in Rome.\* The new edifice, made of stone with red granite columns, was three arcaded stories high on the outside and profusely adorned with statues throughout. Some sculptures represented marvels of history, such as Eutycheis, a woman of Tralles who bore thirty children, and Alcippe, who gave birth to an elephant. Others were allegorical depictions of the nations Pompey had subdued. The vast auditorium, some 164 yards in diameter, seated 11,000 spectators. The stage was the size of half of the Colosseum's arena (built a century later), and the stage building — a permanent architectural backdrop for plays — measured 104 yards wide.

Behind the stage building stretched a great portico: two cov-

\*Up to that time theatrical productions in the city were presented in temporary wooden structures. Each play was dedicated to a particular god and thus most suitably offered in his or her sanctuary. More to the point, theater was a venue for popular gatherings, and thus was potentially a threat to the ruling elite, so a permanent theater had, for many years, been effectively blocked by conservative senators. Pompey circumvented the senatorial opposition in part thanks to his stature as the conqueror of Europe, Africa, and Asia, and in part by a clever bit of architecture. He erected a temple of Venus the Victorious — the goddess to whom he credited all his conquests — at the summit of his new structure. This way the theater was, ostensibly, just a monumental stairway to the temple.

ered colonnades a hundred columns long displaying Pompey's collection of paintings by famous masters (brought from Greece) and shimmering gold tapestries from Pergamon. Between the colonnades was laid out Rome's first public garden, planted with trees and shrubs Pompey had imported from Asia Minor. As the Roman natural historian Pliny the Elder notes, "It is a remarkable fact that ever since the time of Pompey the Great even trees have figured among the captives in our triumphal processions."

At the far end of the portico, Pompey erected a meeting hall for the Senate. It was there that Caesar, the man who would cause Pompey's downfall, would be assassinated. On the Ides of March, 44 BC, the Senate met in Pompey's edifice. When Caesar was attacked and repeatedly stabbed by conspirators, "either by chance or because he was pushed there by his murderers," writes Plutarch, "he fell down against the pedestal on which the statue of Pompey stood, and the pedestal was drenched in his blood, so that one might have thought that Pompey himself was presiding over this act of vengeance against his enemy, who lay at his feet, quivering from so many wounds." But this vengeance was, in 55 BC, still unearned. For now Pompey was content to assert his supremacy over Caesar by peaceful, if ostentatious, means.

The inauguration of Pompey's theater was supposed to be the main event. Here, beneath the temple of Venus, Pompey put on dramatic and choral performances carefully selected and staged to recall his military successes. Cicero, consoling his friend Marcus Marius, who had been too ill to attend, cattily remarked that it had been painful to sit through so many farces and to endure the actors who returned to the stage out of respect for Pompey, having left it out of respect for themselves. The sheer spectacle of such magnificence had taken all the fun out of the thing, for what possible pleasure could one derive from the sight of six hundred mules onstage in the *Clytaemnestra*, or three thousand vases in the *Trojan Horse*, or all the varieties of arms and armor worn by whole regiments of foot soldiers and horsemen who appeared in

every battle scene? For those who were bored with the plays, Pompey prepared another entertainment — his splendid animal combats. In fact, of all the events, the games proved the most popular spectacle.

THE CIRCUS MAXIMUS, the elongated valley between the Palatine and Aventine, was the oldest games venue in Rome. Here 150,000 people gathered for each of Pompey's animal shows, and as there were two shows a day for five days, the crowds hardly subsided. Vendors, astrologers, fortune-tellers, prostitutes, and pickpockets did a marvelous business under the Circus's exterior arcades. Inside, the 600-yard-long, 87-yard-wide racetrack seemed to pulsate with the energy of three tiers of spectators, the nobler ones occupying the cushioned stone seats closer to the arena, the others taking wooden seats higher up.

Pompey, handsome in his embroidered purple toga and gold laurel crown, gazed at the assembled masses from the box at the northwest end of the Circus, above the twelve starting gates closed off by ornamental grillwork. His pride and vanity were richly rewarded by the sight of thousands of delighted Romans flocking to partake of his magnanimity. He must have been very pleased with himself for having prepared for them the most amazing games Rome had ever seen.

The arena, set up with an artificial landscape of mountains, forests, shrubs, and flowing streams, was ready to receive its actors. Behind the scenes the hunters and beast fighters checked their equipment for the last time. The wild animals roared in their cages. The animals to be used for "padding" — the sheep and cows whom the wild cats would hunt between battles with humans — stood in fearful clumps, sensing predators in the air. Around the arena, the noise of thousands of eager viewers grew deafening. It was six in the morning, the hour to announce the first of the

For four days majestic lions and leopards appeared in contests with less exotic animals and with beast fighters. Smoked out of their cages and driven with bundles of burning straw along the vaulted passages into the arena, the wild cats fought fiercely. A number of men had to be carried from the arena on stretchers, bleeding profusely from gashes inflicted by claws and fangs. But the animals suffered the most casualties. Transfixed with spears, lions and leopards rolled on their backs in agony, tried to extract weapons stuck in their throbbing flesh with their teeth, howled in anguish, and died torturous deaths. The baboons, lynx, and rhinoceroses also provided great entertainment with their fighting abilities and noble demise.

And then came the grand finale. Wild elephants would match their massive strength against lithe and swift Gaetulian hunters, whom Pompey had imported from Africa along with the beasts. To the sounds of the chanting crowd and the fanfare of organ, trumpets, and horns, some twenty elephants entered the arena, moving ponderously to the center. Assaulted by the noise and smell of thousands of humans, the elephants flapped their ears, raised their trunks in the air, rumbled, and warily watched the men with javelins on the far side of the ring. At last Pompey gave a sign, and the contest began.

Early on in the program one hunter managed to kill an elephant with a single blow. His javelin pierced the animal just under the eye, instantly reaching the brain. The crowd roared with delight. The music soared. Then another elephant put on a magnificent performance. Its feet wounded, it crawled on its knees against its enemies, snatching up their shields and tossing them high in the air. The spectators, Pliny reports, were thrilled by the curving flight of the falling shields, as if they were thrown by a skilled juggler and not an infuriated wild animal.

But then things began to go wrong. A group of elephants, find-

The closely packed spectators, terrified, ran for their lives, tumbling over and trampling one another. The lofty occupants of the front seats lost all dignity as they scrambled for the exits.

And then the doomed beasts, pursued at spear point and seeing that there was no escape, did something that no one had anticipated. They turned the sympathy of the usually bloodthirsty spectators toward themselves. Dio Cassius recounts:

Contrary to Pompey's wish, [the elephants] were pitied by the people when, after being wounded and ceasing to fight, they walked about with their trunks raised toward heaven, lamenting so bitterly as to give rise to the report that they did so not by mere chance, but were crying out against the oaths in which they had trusted when they crossed over from Africa, and were calling upon Heaven to avenge them. For it is said that they would not set foot upon the ships before they received a pledge under oath from their drivers that they should suffer no harm.

The Romans believed that the elephants could understand human language. Pliny, who particularly admired these noble beasts (along with dolphins, nightingales, and bees), thought them "the nearest to man in intelligence: [the elephant] understands the language of its country and obeys orders, remembers duties that it has been taught, is pleased by affection and by marks of honor, nay more it possesses virtues rare even in man, honesty, wisdom, justice, also respect for the stars and reverence for the sun and moon." He tells a lovely story of one literate elephant who could trace in Greek letters in the sand, "I, the elephant, wrote this," and another about a slow learner who was so embarrassed by his failure to master his lessons, and tired of being beaten for it, that he would practice alone in the night.

According to Pliny, "Pompey's elephants, when they had lost

of wailing, so much to the distress of the public that they forgot the general and his munificence carefully devised for their honor, and bursting into tears rose in a body and invoked curses on the head of Pompey for which he soon afterwards paid the penalty."

The audience begged Pompey to spare the animals who had supplicated for his clemency. Supplication was, after all, a legitimate part of a fight. Gladiators who fought well could ask for a *missio*, an honorable dismissal from the arena. Why not the elephants, who appeared to be partly human already? They had fought bravely and skillfully, and it was the courage, rather than the pathos, of a fighter that won him a reprieve.

But Pompey seems not to have understood popular sentiment, or he simply chose to ignore it. He apparently decided that he could show his power and wealth better if he readily disposed of the exotic creatures he had obtained and brought to Rome at enormous expense. Acting as the warrior he was, rather than as the savvy politician he aspired to be, Pompey ordered the elephants hunted down and slaughtered. The cost of his decision proved greater than he had calculated. The games went down in history as a flop.

POMPEY'S BOTCHED GAMES did not in themselves spell the end of his career. In the years that followed, Rome plunged into increasing chaos. When, in late February 52 BC, no consuls were elected because of prevailing disorder and corruption, Pompey was made sole consul, another bending of the rules for him. But the death of his wife, Julia, Caesar's daughter, in childbirth, weakened the bond between the former colleagues. And Crassus's death in battle, in Syria in 53 BC, further upset the fragile balance of power. As the poet Lucan comments, Caesar could allow no man to be his superior, and Pompey no man his equal. The