Collecting Nature

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Edited by

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ABBREVIATIONS

Op. var.	Opera varia
RL	Windsor, Royal Library
UvA	University of Amsterdam
SLUB	Saxon State and University Library Dresden
ASF	Archivio di Stato di Firenze
GM	*Guardaroba Medicea*

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FOREWORD

> The importance of this pumpkin in the Earl of Emsworth's life requires, perhaps, a word of explanation. Every ancient family in England has some little gap in its scroll of honour, and that of Lord Emsworth was no exception. For generations back his ancestors had been doing notable deeds; they had sent out from Blandings Castle statesmen and warriors, governors and leaders of the people: but they had not – in the opinion of the present holder of the title – achieved a full hand. However splendid the family record might appear at first sight, the fact remained that no Earl of Emsworth had ever won a first prize for pumpkins at the Shrewsbury Show. For roses, yes. For tulips, true. For spring onions, granted. But not for pumpkins; and Lord Emsworth felt it deeply.
>
> For many a summer past he had been striving indefatigably to remove this blot on the family escutcheon, only to see his hopes go tumbling down. But this year at last victory had seemed in sight, for there had been vouchsafed to Blandings a competitor of such amazing parts that his lordship, who had watched it grow practically from a pip, could not envisage failure. Surely, he told himself as he gazed on its golden roundness, even Sir Gregory Parsloe-Parsloe, of Matchingham Hall, winner for three successive years, would never be able to produce anything to challenge this superb vegetable.
>
> —P.G. Wodehouse, *The Custody of the Pumpkin* (1924), republished in *The World of Blandings* by Arrow Books: London, 2008, 270-1.

Lord Emsworth, owner of a rich if idiosyncratic museum at Blandings Castle, is not the only peer in the neighbourhood whose heart beats for *naturalia* of all kinds. His twin passions are the Pride of Blandings, eventually winning the first prize for pumpkins at the Agricultural Show at Shrewsbury, and his favourite pig, the Empress. His attachment to either is comparable to that of a lioness to her cubs.

Perhaps not strictly speaking a collector of *naturalia*, his lordship engages with the fauna and flora of his dominion in competition with fellow members of the aristocracy. Those involved in the game, do not hesitate to cheat, steal head gardeners and pig-men, as well as try to kidnap the Empress in much the same ways that collectors of other categories of exhibits have always endeavoured to increase their hoard of possessions.

Nature can, of course, be collected in many forms and shapes: live

animals have been locked up in cages, displayed in zoos and menageries, and trained to perform in arenas and circuses for millennia. Plants from far-away countries have long been cultivated in botanical gardens and in hothouses. Taxidermied hides and dried body parts were used as part of the set-up in galleries and studies; even the mere depiction of medicinal plants and particularly prized animals was regarded as an important part of the decorative scheme.

Recent research has also shown that *artificialia* and *naturalia* were shown side by side in early modern Europe—sometimes in the company of *scientifica*—and that the exhibition set-up was often laid out as part of a complex arrangement of stables and kennels in conjunction with an art gallery and library within the main residence of aristocratic families. But villas and country houses played their part as well by hosting, for example, a selection of favourite horses as well as paintings and antiquities. Not to forget the botanical gardens and medicinal herb gardens of monastic foundations and universities that gave order and intellectual scope to the cultivation of many new species imported to Europe during the age of exploration.

Of particular interest to the mission of the Collecting and Display forum is indeed the fact that so many collections of *naturalia* were closely intertwined with other collecting categories both as regards the logistics of purchase and transport as well as the choreography adopted for the display. Even the terms by which they were discussed resemble those generally used for display cases as well as for the modus operandi adopted indoors. A case in point is Vasari's description of the gardens of Palazzo Pitti after this *villa suburbana* in the Florentine Oltrarno had been acquired by Eleonora of Toledo in 1549.

"Collecting" and "display" are the keywords that characterise the scholarly aims of the international forum which was founded by three scholars in 2004 (www.collectinganddisplay.com). The group has run a series of research seminars at the Institute of Historical Research, University of London since 2005 and managed a chapter in Florence from 2008 to 2012. From 2006 Collecting & Display have organised summer conferences in London, Ottobeuren, Florence and Irsee. The present publication is the fifth in the series of conference proceedings and it is our hope that it will be followed by many more dedicated to different aspects of collecting and display.

Our first conference took place in July 2006 at the Institute of Historical Research and discussed the connection between collecting and dynastic ambition (CSP 2009). This was followed a by the conference on collecting and the princely apartment (CSP 2011), on female collectors

(CSP 2012: *Women Patrons & Collectors*), and by the conference volume *Collecting East & West* (CSP 2013) which examined the (often-times vicarious) encounters between different worlds via the collectibles imported from foreign cultures and displayed in settings that were intended to give at least a flavour of their original provenance. In 2013 Collecting & Display turned to collections of *naturalia* and *artificialia* (May 2013) in collaboration with Schwabenakademie Irsee. In 2014 two conferences have taken place: the first on collections of prints and drawings (Irsee, June 2014) and the second which addresses the interesting effects of historical collection studies and new trends in museology (Memmingen, October 2014).

This volume also marks a watershed of some importance to our group. From 2014 our publications with CSP will form part of a peer-reviewed special series under the heading of *Collecting Histories*. This will be an "open series" that includes publications regarding the history of collections which did not originate within the group but complement our work. They will, therefore, further enrich the discussion and exchange of cutting-edge research we aim to disseminate through our conferences and seminar sessions.

London, Irsee and Ottobeuren, August 2014

INTRODUCTION

ARTHUR MACGREGOR

Much of the literature dealing with the early history of collecting, emanating as it so often does from an art-historical milieu, addresses the natural world primarily in terms of the problems of representation which it poses, the difficulties of registering great swaths of Creation being solved, it would seem, by little more than philosophical sleight of hand. We are asked to consider the question "What is this organism?" far less frequently than "What does its presence here symbolise?", or "What does it stand for?" A great deal of ingenuity was indeed applied by collectors in marshalling their specimens to do duty as cyphers for the respective elements—the bowels of the Earth, the depths of the ocean, the air (and even, in the case of much sought-after flint "thunderbolts", the Heavens)—or for far-off countries in which every outlandish plant or animal seemed to hold out the prospect of a thousand even more strange. If abundance was a characteristic greatly to be valued—and to be celebrated in popular images invoking the Continents, densely populated with wildlife—undoubtedly it was also problematic.

Absorbing as the mental gymnastics of the founders of early cabinets may be, they represent only one aspect—and an arcanely recondite one at that—of early engagement with the natural world. While the virtuosi surveyed, God-like, the introspective private universes they created in their museums, a great deal of fundamental groundwork had already begun to be undertaken elsewhere by more pragmatic naturalists for whom collections functioned essentially as practical aids to understanding, analysing and classifying the several realms of nature. An attempt is made here briefly to summarise a little of the character and the preoccupations of either of these communities, which jointly contributed to the evolving practice of collecting in the museum age and which deserve acknowledgement in equal measure.

The Early Centuries

Cabinet collections played no exclusive role in the early development of natural history in the later years of the Renaissance. While exotics for the

most part reached collectors through the enterprise of travellers and seafarers, it may be assumed that more local species were assembled in the course of forays into the field—or at least into the garden—by the collectors themselves and their immediate circle.

Almost all aristocratic or princely collections must instantly be excluded from this generalisation, however, since the focus on curiosity and rarity that permeated *kunstkammer* culture by definition excluded any common or garden specimens (unless rendered curious by some malformation or by aberrant colouring, for example) in favour of material that fell specifically outside the range of that normally encountered. Even early attempts at rational characterisation of elements of the natural world seldom escaped entirely from the lure of the monstrous: a striking proportion of the lemons included amongst the surviving drawings commissioned by Cassiano dal Pozzo to illustrate Giovanni Batista Ferrari's ambitious *Hesperides* (1646), for example, prove to be *monstrosa* or *scherzi*, the significance of which proved a topic as intriguing for the naturalists as it did for collectors of rarities.[1]

For those drawn to the more considered study of botany, collections of seeds and dried plants played an important role in overcoming the problems imposed by seasonality or the transmission of specimens from one part of the globe to another, but frequently they formed only adjuncts to the herb garden itself (and later the hothouse) in which living specimens provided the primary material for research and which, needless to say, had the advantage of being potentially self-renewing. The gardens of several private collectors achieved considerable reputations—those of the Villa Medici in Rome, for example, or the Villa Aldobrandini in Frascati—and in turn institutionalised gardens of a systematic nature began to appear. Among the earliest of these were the university physic gardens at Pisa (1543), Bologna (1568) and Leiden (1577), which set a pattern emulated more widely, while the growing community of apothecaries was responsible for the establishment of many more physic gardens outside the university system. At both Pisa and Leiden cabinet collections were established within the university gardens, extending the range of the plant collections but also attracting specimens from the animal and mineral worlds as well as man-made rarities. For their part the apothecaries —perhaps to an even greater extent than the physicians—formed one of

[1] An intricate and thoughtful discussion of the forces at play in this work is given by David Freedberg in the introductory chapter to Freedberg and Baldini 1997, 68-77. A large proportion of Cassiano's '"paper museum" comprised specially commissioned drawings of natural specimens, forming analogues for collections of animals encountered more frequently elsewhere.

the most influential groups of collectors, their professional practice promoting and shaping the development of collections of *naturalia*—animal and mineral as well as botanical—and providing a systematic framework for the organisation of specimens. They too created a sustained demand for exotic species such as *Cassia* and *Cinchona*, and as a body they deployed an unmatched range of botanical knowledge.

In these various ways, gardens represented some of the earliest sites around which collections coalesced. Later their interest was further added to by the introduction of sculptural ornaments and shell- and mineral-lined grottoes, and by the development of watering systems that might incorporate ornamental fishponds and hydraulic gadgets to entertain the visitor.

Live birds and animals might similarly be studied in detail in private menageries, although paradoxically from the point of view of advancing knowledge they were often more useful dead than alive—at least once dissection began to be practised on a wide scale by investigators. But as with plants, exotic specimens were quite likely to enter households as living rarities, their mortal remains migrating to the cabinet once they had died. Gardens and private zoos might, to some degree, share the same space: Francis Bacon had counselled learned gentlemen that they should equip themselves with a spacious garden, "wherein whatsoever plant […] either wild or by the culture of man brought forth, may be […] set and cherished: this garden to be built about with rooms to stable in all rare beasts and to cage in all rare birds"[2]—an idealised model that John Evelyn found given physical form at the Villa Borghese in Rome, which boasted not only a garden that "abounded in all sorts of the most delicious fruit, and Exotique simples" and which contained also "Fountaines of sundry inventions", but also "divers strange Beasts".[3] St James's Park in London was home to a wide range of exotics in the seventeenth century, including ambassadorial gifts of pelicans from Russia and ostriches from Morocco.[4] A menagerie, no less than a garden or a cabinet, might summon up images of a lost paradise whose remnants the collector sought to redeem in the flesh in much the way that Jan Brueghel or Roelant Savery sought to accomplish in paint. In even so practical a setting as the anatomy school at Leiden University the skeletons of men and animals could be rearticulated to form tableaux commenting and moralising on the fall of man and his subsequent beastly progress.[5]

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[2] Bacon 1594.
[3] Evelyn 1955, II, 251.
[4] MacGregor 2000, 106-7.
[5] Gogelein 1975, 101-6.

A key development in forwarding progress in the systematic collection of nature involved breaking the habit of privileging the curious or the aberrant over specimens that were both regular and commonplace. John Woodward made the case succinctly in his *Brief Instructions for Making Observations in All Parts of the World* (1696):

> In the Choice of these Things, neglect not any, tho' the most ordinary and trivial; the commonest Peble or Flint, Cockle or Oyster-shell, Grass, Moss, Fern, or Thistle, will be as useful and as proper to be gathered and sent, as any the rarest production of the Country.[6]

Elsewhere he took to task those scholarly collectors who failed to observe the same strictures:

> 'Tis not well that Gentlemen that have not duly inform'd themselves of Things the most obvious and common, should take upon them to write of those that are the most abstruse and difficult. This is what has laid the foundation of Amusements in Natural History, and Errors without end.[7]

Although Woodward was not alone in grasping these truisms, his pronouncements may be said to form something of a manifesto for the more objective view of nature and the more rational conduct of research that would characterise natural history in the Age of Enlightenment.

Enlightenment Agendas

Giuseppe Olmi has aptly pinpointed a key text by Antonio Valisnieri (1661-1730), professor of natural history at Padua, as encapsulating the ethos of the serious end of the spectrum of natural history collecting in the eighteenth century:

> Really, what could be more useful in coming to know nature than seeing particular classes of natural bodies at the same time and in the same place, seeing with what order Nature puts them together, seeing how one species responds to another, the individuals to the individuals [...]? In fact, what is a museum if not the natural bodies' index of names and descriptions? What easier way is there of putting together a lexicon of nature [...] than with the aid of a museum?[8]

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[6] Woodward 1696.
[7] Ibid.
[8] Quoted in Olmi 1993, 225.

Nowhere was this encyclopaedic vision realised more successfully than in the Cabinet d'Histoire Naturelle, nucleus of the later Muséum d'Histoire Naturelle, that emerged in the former royal physic garden in Paris and whose success was sealed with the appointment as its director of Georges-Louis Leclerc, Comte de Buffon, in 1739. Not always the most assiduous of curators, Buffon did initiate a cataloguing project which ultimately so far outstripped its original plan as to form the basis of his 44-volume *Histoire naturelle* (1749-1804)—perhaps the most comprehensive treatment of the subject ever embarked upon and certainly too all-encompassing ever to have succeeded on the basis of a single collection. A stellar cast of naturalists appointed by the Muséum's various departments not only brought it success under the monarchy but steered it through the perilous years of the Revolution and beyond.[9] The confiscations made in favour of the Muséum (which followed the same imperialist agenda for natural history as the Musée du Louvre—then renamed the Musée Napoleon—pursued for the fine arts) by the commissioners who followed on the heels of the Napoleonic armies as they swept through Europe, serve to show how highly developed collecting had become in the subjugated nations. The most magnificent trophy was the collection of Willem V, *Stadhouder* of the United Provinces of the Netherlands, incorporating all the riches that the Dutch colonies from South America to the Far East could provide: with the annexation of this one collection to Paris, the commissioners concluded, the collection there would become "the most magnificent in existence in the world and the most useful for the progress of natural sciences", a position it could reasonably claim to have maintained until at least the middle of the nineteenth century.[10]

The same period had seen the founding in 1753 of the British Museum, with the vast bulk of the natural specimens coming from the collection of Sir Hans Sloane. Although a serious attempt was made to bring order to Sloane's collections—representing perhaps the last and largest universal museum of its kind—by the appointment of Daniel Solander, a pupil of Linnaeus, to catalogue the national collection according to the systematic principles of the new orthodoxy, the move was frustrated by Solander's early death and the natural collections may be said to have reached their apotheosis only with the opening of the new British Museum (Natural History)—today the Natural History Museum—at South Kensington in 1881.[11] During the intervening century, however, natural history in Britain had been placed on a world stage by the three voyages of Captain James

[9] Admirably summarised in Spary 2000.
[10] Pieters 1980.
[11] Stearn 1981.

Cook to the South Seas, the first setting out in 1768 and the last seeing Cook's death in Hawai'i in 1779. Between them these voyages galvanised interest in every branch of natural history in Britain, with shell collectors, for example, now competing vigorously with each other for every specimen retrieved by the official naturalists who accompanied the first two voyages or by crew members of every rank who sought to capitalise on the craze which gripped the whole country. It may truly be said that the Cook voyages not only marked the professional coming of age of British natural history but also resulted in a dramatic widening of interest in the subject amongst the public at large.[12]

Of course, not all collectors were equally equipped to contribute to the great project of registration and classification that now gripped the community of naturalists, and indeed there were many for whom rarity or aesthetic value continued to outweigh matters of scientific exactitude. For the more serious-minded, whether in the academic milieu or amongst the ranks of committed amateur collectors, the textbooks and manuals which had begun to circulate more widely in the course of the seventeenth century increased exponentially in the course of the 1700s, offering opportunities for individuals to locate their own specimens within emerging classificatory frameworks and enhancing their ability to take communicate with other enthusiasts: during this period the "republic of letters" that had united scholars with shared interests in the early seventeenth century expanded to embrace the whole of polite society, while the emergence of natural history clubs such the Linnean Society, founded in 1788, heralded the beginning of a movement that would climax with the more broadly inclusive clubs that proliferated in the nineteenth century and brought an even wider spectrum of collectors into play.[13]

For all these communities involved in the study of natural history the work of skilled artists—and increasingly of faithful engravers—allowed the process of comparison and conjecture to be extended beyond the confines of the cabinet and to be projected on an international scale. The importance of the book to the progress of early scientific inquiry is perhaps more readily acknowledged by historians than the contribution of the collection itself. It is by now well understood that collection catalogues formed important means of expression of emergent classificatory systems and, further, that few if any museums displayed the same rigour or organisation that was attributed to them on the printed page: each offers a different form of logic and experience, but at the same time they are

[12] See, for example, the essays by Hugh S. Torrens, Bengt Jonsell and Neil Chambers in Anderson *et al*. 2003.
[13] For this period in Britain see Allen 1993.

utterly interdependent, for no progress could be made in the development of taxonomy without the basis of an extensive, orderly and stable collection. By customarily developing an extensive web of cross-references to other collections and to the works of the foremost naturalists of the day, catalogues too entered an arena of dialogue that was as much symbolic as merely bibliographical: by associating his specimens with those raised to the status of icons in the works of Aldrovandi, Rondelet, Piso and their contemporaries, the collector continued the process of status-enhancement that had been practised by the founders of *kunstkammern* with their portraits of collectors and patrons with whom the visitor was invited to identify him.

Exotica might well be included in such a collection, but it could no longer take precedence over the everyday. For a time in the early eighteenth century the Royal Society employed an "itinerant naturalist" with the aim of assembling a collection that would represent a complete inventory of all the natural resources of the British Isles—a literal realisation of the universalist programmes espoused in symbolic form by earlier collectors.[14] The natural history collection had taken the first steps in graduating from rarity show to an essential tool in the progress of science.

Hitherto only the more robust specimens could even be considered for preservation but great advances in the techniques of handling and preserving specimens accompanied these advances in methodology. Plants continued to be preserved as dried specimens but increasingly it became common for them to be mounted on individual sheets of card rather than in albums, an acknowledgement of the increasing likelihood that advances in the field of taxonomy would require collections to be rearranged as relationships were refined and revised. Appropriate techniques for the treatment and preservation of insects were evolved, with some being drowned in alcohol and pinned temporarily in the field in order to minimise damage and other pressed like flowers until all could be arranged systematically in glass-topped drawers in the collector's cabinet. Animals and birds presented more considerable problems which were gradually overcome in the 1700s and 1800s to the point where a wide spectrum of species could be sought after and not merely the more indestructible armadillos and crocodiles that had predominated in early collections.[15] Birds proved especially intractable, and although the range of specimens displayed at an early date in, for example, the museum of Sir

[14] Hunter 1985, 164.
[15] Morris 2010.

Ashton Lever, might lead us to conclude that the major problems in their preservation had already been solved, we can still find William Bullock writing in 1817 that "no considerable Collections have hitherto been made of [birds], and those who had begun to make any soon […] had the Mortification to see them every Day destroyed by ravenous Insects".[16] The introduction of arsenical soap ultimately brought some relief from these problems, allowing taxidermists to develop their craft to the extent of presenting their specimens in naturalistic poses; biological groupings of specimens had begun to appear even by the turn of the nineteenth century, for example at Kassel and in the Hofmuseum at Vienna, although somewhat in the teeth of the curators who proved resistant to this early form of popularisation.[17]

The growing appeal of natural history proved irresistible, however, and in the course of the 1800s displays of natural specimens made their final leap into the forefront of public consciousness. In Britain the displays mounted by Sir Ashton Lever and by William Bullock in their respective museums proved enormous crowd-pullers, outstripping the capacities of the British Museum to satisfy public demand—not least by their emulation of Continental taxidermists in presenting their specimens in realistic (and sometimes dramatised) poses rather than as staid academic displays. With increasing frequency these specimens might be presented in painted settings that encouraged an even broader public to identify with a subject that had in some sense been distanced from them in earlier decades and centuries by its removal to the privacy of the collector's cabinet.[18]

With the Great Exhibition of 1851, acknowledged as a turning-point in mass attendance of public displays, the work of no fewer than thirteen British taxidermists—as well as others from the Continent—was included along with the best the country had to offer in art and industry. Today we would be less sanguine about appropriating the animal kingdom to such a setting, but there could have been no more striking indicator of the degree to which natural history had, by the mid-nineteenth century, become a topic not only for scientific debate but for inclusion among the spectrum of interests that absorbed the contemporary collector.

[16] Bullock 1817.
[17] Summarised in MacGregor 2007, 266-8.
[18] The spectacular series of dioramas in the Mammal Halls of the American Museum of Natural History in New York represent perhaps the ultimate expression of this movement.

CHAPTER ABSTRACTS

Chapter One
Rachel King

When the French diplomat Charles Ogier saw frogs and lizards embedded in amber for sale during his visit to Danzig in November 1635 he called them "miniature miracles of nature." With rare exceptions, few of these objects—copiously documented in inventories of the time—have actually survived. Instead, we must depend on Michele Mercati's *Metallotheca* (1717), Sendel's *Historia Succinorum* (1742) and contemporary "scientific" watercolours for an idea of their appearance. Such publications and drawings not only record their appearance but also further document their presence in collections. What was it that made the inclusion in amber so attractive to the early modern collector? Was it the body preserved within, the baffling ability of the material to preserve it, or the pleasure of owning a piece of poetry, this genre of object having been immortalised by Martial in his *Epigrams*? Or, indeed, something quite different? This chapter explores the collecting of nature within nature.

Chapter Two
Angelica Groom

The chapter focuses on a collection of animal paintings commissioned by the last two Medici grand dukes—Cosimo III and his son, Gian Gastone. The series, totalling approximately a hundred pictures, were painted by Bartolomeo Bimbi and Pietro Neri Scacciati during the first four decades of the eighteenth century and were destined to be displayed in the princely setting of the Medici Villa Ambrogiana. The two artists drew their inspiration both from living and from stuffed creatures in the Medici's animal collections, to create pictures that portray very vividly and diversely the relationship between animal collecting and the use of rare fauna as a subject in art within the context of the Florentine grand-ducal court.

The animal "portraits" Bimbi painted for Cosimo III are very precise and analytical in their anatomical naturalism, and these pictorial characteristics will be linked to Cosimo III's interests in natural history, his promotion of zoological research and his desire to catalogue and to classify the living fauna and flora in his domain according to his unique sense of the macrocosmic order.

The zoological paintings Scacciati created for Gian Gastone display a departure from the traditions of mimetic naturalism; instead their creation reveal an intriguing connection with scientific advances in taxidermy, which made it possible to preserve rare specimens from the princely menagerie for the longer-term. This development, while anticipating the conception of natural history museums during the latter half of the eighteenth century, in the context of the Medici court, Scacciati's paintings signalled not only an end in zoological collecting, but also the decline of the Medici dynasty.

Chapter Three
Virginie Spenlé

Taking a hitherto unknown and unpublished mortar with life-cast decoration by Jamnitzer as its point of departure, this chapter explores the significance of cast-life metal works labelled by Ernst Kris as "style rustique" (1926) in the context of the early modern *kunst-* and *wunderkammer* and court experimentalism. Pamela Smith (*The Body of the Artisan* 2004) demonstrated very convincingly that in the late sixteenth century, artistic—or as she calls them "artisanal"—activities aiming at a realistic representation of nature were in fact considered the only way to scientific knowledge. Such knowledge could solely be achieved through a process of experience and labour. Wenzel Jamnitzer is well known for his interest in mathematics, geometry and optics. As a goldsmith he was also deeply interested in the chemical properties of metals. His mortar attests to the significance of life-casting as a scientific endeavour close to alchemy; it attempts to unlock the secrets of divine generation and, therefore, enjoyed great popularity among the sixteenth-century "prince-practioners".

Chapter Four
Joy Kearney

Dutch taste in the seventeenth century was greatly influenced by exploration abroad and by the collecting of "trophies" from exotic locations. The Dutch East India and West India Companies were responsible for the introduction of many new species of mammals, birds and plants into the Netherlands that had never previously been seen in Europe. This added a new dimension to the "kunstkabinet" or "rariteitenkabinet", private museums in the possession of wealthy merchants and affluent citizens, namely the importance of natural history and biodiversity in an age of proto-Enlightenment.

In the Netherlands of the seventeenth century a large number of

menageries and natural history collections documented the travels of the Dutch fleet overseas. In conjunction with the formation of these collections happened a transformation of the traditional artistic expression: paintings of birds and other animals were from now on executed in a strikingly realistic manner. Artists were able, thanks to the extravagant collections of exotica, to document the mammals and birds then being imported into the Netherlands. Birds were a particularly prized possession, immortalised in the paintings of Melchior de Hondecoeter, Jan Weenix, Pieter Boel, Frans Snyders and Aart Schouman, to name but a few. This genre did not constitute a new subject in art, but the approach was innovative.

Where did these birds originate from and which types appear most frequently in either the collections or the paintings? And, can a symbolic/iconographic/emblematic significance be read into the choice of species? These and related issues will be examined so that a clearer picture may be gained of this specialised genre in Dutch seventeenth-century painting.

Chapter Five
Shepard Krech III

To appreciate in full the contributions of Mark Catesby to the natural history, science, and art of birds (of which he depicted over 100), this naturalist is measured against several of his immediate predecessors and contemporaries, in particular John Ray and Francis Willughby, Eleazar and Elizabeth Albin (and William Derham), and George Edwards. His desire to illustrate in his art the link between a bird and its diet or habitat, as well as to contribute textually to the long-standing debate over what happens to birds when they are no longer present, as in winter—do they hibernate or submerge themselves in mud or water, or do they fly away to distant lands?—mark Catesby as on the cusp of an ecological sensibility, well en route to scientific comprehension of the systemic lives and histories of birds. In a corpus as ambitious on birds alone as Catesby's, based as it was on the limitations of time, geography, and the need to satisfy the expectations of patrons interested primarily in botanical specimens, there are bound to be shortcomings, which are discussed along with Catesby's undoubted and widely recognised strengths.

Chapter Six
Miriam H. Kirch

Elector Palatine Ottheinrich (1502-1559) is best known as the bibliophile whose collection formed the backbone of the Bibliotheca Palatina, the

great Protestant library that was removed from Heidelberg to the Vatican in the Thirty Years' War. However, Ottheinrich collected all manner of objects, among them plants. Some of these went into gardens he had established in the 1530s in his former residence, Neuburg an der Donau. One of these gardens held his menagerie, which at one time included exotic animals he had received as gifts from Italian princes in Ferrara and Florence. Southern influence was also present in the other garden, which contained copper planters and an aviary and stood on the flat roof atop one wing of the Neuburg palace, an early German version of a garden type known from Renaissance Italy. Ottheinrich followed the Neuburg gardens with one on the outskirts of Heidelberg; this garden served students of medicine at the University, and here were orange trees that wintered in one of the first orangeries north of the Alps. This and Ottheinrich's Neuburg gardens have been studied as precursors of the Hortus Palatinus, the magnificent late Renaissance garden at Heidelberg Castle. The focus of this paper, in contrast, is on the correspondence that documents Ottheinrich's interests, expertise, and plant-collecting network. These letters, never studied by English-language scholars, provide a vivid picture of a somewhat neglected area, princely collections that were visible outdoors.

Chapter Seven
Ivo Raband

The (art) collection of Archduke Ernest of Austria (1553-1595) is widely unknown when it comes to early-modern Habsburg collections. Ernest, younger brother of Emperor Rudolf II (b. 1552) and educated at the Madrid court, was appointed Governor-General of the Netherlands by King Philip II of Spain, his uncle, in summer 1593. Ernest relocated his court from Vienna to Brussels in early 1594 and was welcomed there with lavish festivities: the traditional *Blijde Inkomst*, Joyous Entry, of the new sovereign. Unfortunately, the archduke died in February 1595 after residing in Brussels for a mere thirteen months. This investigation aims to shed new light on the archduke and his short-lived collecting ambitions in the Low Countries, taking into account that he had the mercantile and artistic metropolis Antwerp in his immediate reach. I argue, that his collecting ambitions can be traced back to one specific occasion: Ernest's Joyous Entry into Antwerp in June 1594. There the archduke received a series of six paintings of Pieter Bruegel the Elder (1525/30-1569) known as *The Months* (painted in 1565), hanging today in separate locations in Vienna, New York and Prague. These works of art triggered Ernest's collecting ambitions and prompted him to focus mainly on works of art