Originalveröffentlichung in: D. Eichberger und C. Zika (Hrsg.), Dürer and his Culture. Cambridge 1998, S. 13-37 und S. 212-216

2 Naturalia and artefacta: Dürer's nature drawings and early collecting

DAGMAR EICHBERGER*

Albrecht Dürer lived and worked at a time when collecting was no longer the prerogative of kings and princes but had increasingly become an option for the wealthy and well-educated burghers of cities such as Nuremberg, Augsburg, Antwerp and Basel. New philosophical concepts and ideas, mostly imported from Italy, influenced the intellectual life of Renaissance Germany. This and the advent of new printing technology created a climate in which cultural change and innovation spread more rapidly.¹ The exploration of the New World, religious reform movements and the rise of new cults and beliefs impacted in various ways on the social and political order of society. Artists actively participated in these events and expressed the new ideas associated with them not only in writing but also through art.

Dürer was an artist who very consciously observed and commented on what was happening around him. He was almost painfully aware of his own role in the metamorphosis of German art, a fact which comes across both in his theoretical writings and in his letters. As Koerner has pointed out, Dürer was also one of the first artists to understand and interpret his daily artistic output as part of a larger whole.² We know from the annotations on his drawings and watercolours that Dürer consciously shaped and arranged his œuvre later in his life in order to document the slow transformation from a talented yet inexperienced artist into one of the leading lights of Northern Renaissance art.

Many of the traditionally held views on nature and its place in the universe as a whole were fundamentally questioned during Dürer's lifetime by the discovery of new continents, new trading routes and new people. For those reasons alone it must have been quite exciting and intellectually challenging to live in a society which rapidly responded to these changes. This applies especially to a few privileged artists such as Dürer, who were in a

^{*} To Hans Belting on his sixtieth birthday. I wish to thank Irena Zdanowicz and Lisa Beaven for their comments. I am grateful to C. J. Wright, who gave me access to the forthcoming article by Kirsten A. Seaver.



Fig. 2.1 Albrecht Dürer, Sketches of Animals and Landscapes, 1521, pen and black ink, with blue, grey and rose washes

position to participate in the international exchange of information.³ The closely knit community of courtiers, humanists, diplomats and merchants, who operated across Europe and beyond, readily provided the latest information on the exotic people living in the new Americas, on products available from India, and on all the other explorations which took place at the beginning of the sixteenth century. Artists such as Weiditz,⁴ Burgkmair, Altdorfer, Baldung Grien and Dürer were actively involved in documenting and interpreting these events. The rise of naturalistic studies of nature in the early fifteenth century, first in Northern Italy and later in the southern Netherlands and Germany, prepared the way for the almost systematic exploration of the visible world which became a characteristic of Albrecht Dürer's large œuvre of watercolours and drawings.⁵

Artists such as Dürer and Leonardo da Vinci undoubtedly played a central role in instigating a fresh interest in animal studies by producing proto-scientific drawings, which only in the middle of the sixteenth century were followed by more scholarly scientific studies.⁶ As Pass and Kemp have pointed out, Dürer's attitude to nature studies differed in several respects from Leonardo's.⁷ While Leonardo seemed to have searched to a larger degree for underlying principles and universal structures hidden behind the surface of the visible object, Dürer was primarily interested in portraying the outer appearance of his object of study, which he depicted as accurately and as naturalistically as possible. His awakening interest in theory centred on geometry, perspective and physiognomy rather than on the mechanics of the body or the origins of motion in nature.

Driven by a thirst for knowledge and information, and motivated by an acute awareness of the importance of many of these discoveries for later generations, these artists captured their first impressions of recently discovered species and newly imported ethnographic material in numerous drawings and watercolours (fig. 2.1). Information of this kind could be transmitted in different ways and it is well known that artists were not always preparing drawings directly from the life object.⁸ Occasionally, their drawings were informed by a range of alternative sources, such as stuffed or dried specimens, oral or written descriptions and sketches of exotic objects by other artists.⁹ A few examples may clarify the complex circumstances which determined the making of nature studies in this period.

On his visit to the Netherlands, Dürer was fascinated by the animals in the royal zoo in Brussels and made several drawings of lions, as well as of a monkey and a lynx.¹⁰ In the case of the baboon portrayed on this occasion, Dürer also noted down the weight and size of the animal and coloured the



Fig. 2.2 Albrecht Dürer, Rhinoceros, 1515, pen and brown ink drawing with delicate watercolours as if to capture its appearance for later reference.¹¹ While most of the time Dürer drew directly from life, he and Burgkmair also recorded what they did not see first hand (fig. 2.2). The Rhinoceros is a well-known example of Dürer's interest in all things new and his active involvement in interpreting visual and written evidence.¹² When in 1515 the governor of Portuguese India sent a live rhinoceros as a gift to his king in Lisbon, its arrival caused a great stir in the German community of that city. Provoked by this unusual encounter with a most exotic animal, an eve-witness from Lisbon sent a detailed note and a drawing to Nuremberg which shortly thereafter became the source of Dürer's pen and ink drawing in the British Museum (fig. 2.2).¹³ When transforming his sketch of the rhinoceros into the woodcut of the same subject, Dürer followed his preparatory sketch in almost every detail. The initial description of the animal, however, was slightly altered for the printed version, perhaps to make it sound more exotic. In the text accompanying the drawing in London the animal is characterised in the following way: 'Hat ein Farb wy ein krot.'14 In the woodcut, the ambiguous German term krot¹⁵ was replaced by the



Fig. 2.3 Hans Burgkmair, Black Youth Dressed in Indian Costume, after 1519, pen and black ink, with grey, brown and green washes

unequivocal and more descriptive term gespreckelte Schildtkrot or 'freckled tortoise'.

Hans Burgkmair is another case in point. In 1508 he provided the woodcuts for Balthasar Springer's written account of the first voyage of German merchants to India, without ever having visited the Portuguese Indies himself. In two slightly later watercolours (fig. 2.3), two black youths are depicted in exotic clothes consisting of a feather skirt, a cape and a headdress.¹⁶ The weapons they hold, a club, a shield and an axe with a shrunken head are probably based on authentic ethnographic material, brought to Europe from Mexico and South America. In these drawings Burgkmair mixed fact with fantasy by combining what he saw with what he knew about the inhabitants of distant continents. In 1519 similar objects had been sent to the new emperor by Hernan Cortes and had been put on display in the ducal palace in Brussels, where artists such as Dürer were overwhelmed by their rarity and beauty.¹⁷ In the notebook of his trip to the Netherlands, Dürer poignantly expressed his sense of wonder and voiced his admiration for the artistry and creative power of the people of these foreign lands.¹⁸ Interestingly, Dürer himself never made any drawings of the South American artefacts he was so impressed by, and it seems he generally preferred to sketch humans, animals or plants from life. The natural object itself and the painted record of it became increasingly more important for the preparation of both his prints and paintings. That Dürer not only drew but also collected rare and exotic items himself later in his life has not received much attention to date. The close links between the act of recording and collecting and the significance of both for the creation of new works of art will therefore receive further attention in this chapter.

One way of dealing with the multitude of new images and impulses which flooded the senses and minds of those interested in new discoveries was to collect a wide variety of objects, including trophies from the New World.¹⁹ In the sixteenth century private collections increasingly became repositories for so-called Naturalia, a category which included specimens of rare plants, minerals and exotic animals, and for Exotica, a term used for ethnographic material and artefacts from distant countries.²⁰ Another group of objects significant for our discussion were those included under the category Artefacta. This generally encompassed man-made objects and often those which had been constructed from precious and rare materials. With respect to collecting exotic animals, only very few individuals such as Emperor Charles V could afford to maintain their own zoo with live exhibits.²¹ Most collectors had to be content with possessing a stuffed animal, or, if that was not a viable option, with a faithful rendition of the desired species. It is therefore not surprising that images such as Dürer's wing of a Blue Roller – a very refined drawing in watercolour and body colour on vellum - were highly treasured collector's items and were passed on from one owner to the next.²² Dürer's productivity in the area of nature

studies, as well as the large number of drawings made after his designs, can partly be explained by this steadily increasing demand.

There has been little research to date on how private collections in Germany were organised and displayed in the first half of the sixteenth century. It will therefore be necessary to start with a brief discussion of better-known collections, dating from the second half of the sixteenth century, in order to shed light on what happened in Dürer's lifetime.²³ By the third quarter of the sixteenth century several attempts had been made to order, record and systematise collections according to the often quite diverse aims and objectives of the individual owner.24 In some cases a separate space was set aside for the storage and display of the collection. More commonly, the collector kept his or her collection in the living quarters of their palace or townhouse. In earlier centuries, a small number of individuals had been in the business of collecting relics, art objects, manuscripts, tapestries, etc. However the opening up of Europe to new countries and continents and the rapid and wider dissemination of information on the most recent discoveries stimulated a general desire to own tangible proof of these other realities, which existed outside one's own immediate environment. While in the past collecting had predominantly been the privilege of princes and kings,25 this group was now joined by wealthy patricians and merchants such as Willibald Imhoff and Paulus II Praun,²⁶ and by erudite humanists such as Willibald Pirckheimer and Bonifacius Amerbach.²⁷ The considerable growth in the number of private collections seems to have gone hand in hand with a strongly felt need to structure and organise this newly gained knowledge of the world. By arranging their possessions more systematically and by contextualising their objects in different ways, collectors were attempting to integrate the exotic and the familiar into their broader conceptual framework of the universe. In several cases a conscious attempt was made to create a microcosmic mirror image of their environment and the world as a whole through their encyclopedic approach to collecting.

Recent research on individual collections from the second half of the sixteenth century has provided us with ample proof of the many different approaches taken to collecting.²⁸ The first theoretical manuals on what to collect and how to structure one's collection were written in the third and fourth quarter of the sixteenth century by Samuel Quiccheberg (1565)²⁹ and Gabriel Kaltemarkt (1587).³⁰ Quiccheberg, for instance, formulated an ideal plan for a ducal collection and suggested dividing all objects into five major groups or fields, an idea he based on Pliny's Historia Naturalis.³¹ According to Quiccheberg's encyclopaedic treatise, the recording, analysis and investigation of nature was the highest goal of all human activity. He saw it as his task to provide the potential collector with a key to this daunting task. In our context, his attitude to Naturalia and Artefacta is of particular interest. Both are listed as two independent fields, Artefacta representing group 2 and Naturalia being classified as group 3.³²

Local rulers such as Archduke Ferdinand II,33 and Albrecht V of Bavaria kept their collections in purpose-built, museum-like spaces which were equipped with special tables and carefully constructed display cases.³⁴ Ferdinand II's museum in Schloß Ambras, close to Innsbruck, consisted of an extensive armory,³⁵ a Kunstkammer or cabinet for art objects, a library and an Antiquarium. His art collection, comprised objects made from gold, silver, ivory, alabaster, glass, corals, cast iron, porcelain and wood, as well as hand-stones, musical instruments, clocks, automats, a selection of books and pre-Columbian feather-works.³⁶ It was displayed in eighteen cupboards which were consciously decorated in eight different colours. These colours were chosen in accordance with the type of object or kind of material from which the objects were made. In some cases the differently coloured backgrounds were intended to enhance the effect of the various materials on display. In contrast to Quiccheberg's manual, Ferdinand II's collection did not make a clear distinction between Naturalia and Artefacta. Undecorated branches of coral, for example, were exhibited next to intricately carved and mounted pieces of coral and shell (fig. 2.4).

While the actual terms Naturalia and Artefacta only appear in later theoretical literature,³⁷ it can be assumed that collectors and theoreticians were aware of the general distinction between the raw material itself, that is samples of plants, animals or minerals or representations thereof,³⁸ and the various kinds of skilfully crafted objects which were made from these organic and inorganic substances. Ferdinand II and Albrecht V are well known for their distinct predilection for Artefacta of this type. A wonderful example is a decorative coral cabinet still on display today in its original setting in Schloß Ambras. This fantastic creation consists of a wooden case which forms a backdrop for an imaginary mythological landscape made from corals, mother of pearl, whole abalone and nautilus shells, gypsum, lapislazuli, glass, mirrors, gilding and cast bronze animals.³⁹

The general preference of collectors such as Ferdinand II and Albrecht V for Artefacta over Naturalia is also reflected in their large collections of decorative miniature landscapes, which are populated with humans and animals (fig. 2.5). The so-called 'handstones', for instance, were made often from untreated iron ore, encrusted with different minerals, precious



Fig. 2.4 Mounted Coral Branches from the Kunstkammer of Archduke Ferdinand II at Schloß Ambras

> stones and quartz. Once these different specimens had been glued together to take the form of a mountain, representations of animals and human figures were added to create a microcosmic environment which represented aspects of real life. The handstone from Schloß Ambras, for instance, shows miners at work.⁴⁰

> A much earlier example of this use of raw material can also be found in the reliquary treasure of Cardinal Albrecht von Brandenburg. In the first decades of the sixteenth century Albrecht made himself a name for amassing and exhibiting more than 350 reliquaries and numerous artworks in the collegiate church of Saint Maurice and Saint Magdalene in Halle.⁴¹ The remains of Saints Cosmas and Damian (fig. 2.6), for instance, were kept in a golden chalice, which was covered by a lid made from partly gilded silver



Fig. 2.5 Handstone with a Crucifixion and Miners at Work ore.⁴² Perhaps as a reference to the local origin of the material, the amorphous lump of silver ore had been adorned with a cross and with miniature representations of miners, similar to the handstone in Ferdinand II's collection. Thus, the form of the reliquary in no way projected an idea of the kind of relic it contained, but rather referred to the economically important mining industry located within Saxony, the region from which this piece probably originates.⁴³

It appears that some of these collectors did not treasure Naturalia in the first place for their scientific value, that is as geological, zoological or biological specimens, but rather found pleasure in representations of controlled and ordered nature, which gave new meaning to these rarities. This could be achieved either by integrating them into a narrative context or by turning them into seemingly functional objects, such as a scientific instrument or a receptacle. A cup made from the horn of a rhinoceros and fitted with a gilded lid and a foot, which was held in Ferdinand II's collection, is a good example of the transformation of rare and exotic substances into tableware or other objects of practical use.⁴⁴ Like the rhinoceros which served as a model for Dürer's drawing and woodcut, the material for this artefact also probably came from the Portuguese colony of Goa in India.

An earlier example of the same approach to Naturalia can be found in the collection of Albrecht von Brandenburg. It is a mounted nautilus shell, which served as a receptacle for several primary and secondary relics of Saint Elizabeth, among them a rib, a whole finger, toes, bits of her flesh and a cross, allegedly one of her favourite pieces of jewellery (fig. 2.7).45 Leaving aside the period's rather bizarre attitude towards the body parts of venerated saints and martyrs, it is worth taking a closer look at the way in which the highly treasured nautilus shell was represented by those artists who were involved in documenting Albrecht von Brandenburg's valuable collection. In 1526 Albrecht employed a group of illuminators to decorate a handwritten inventory of his collection with lavish miniatures (fig. 2.8). The text of this manuscript, which was to become his personal copy, followed the general structure of the Halle Relic Book, printed in 1520.46 According to both representations, the woodcut and the illumination, the nautilus shell was not exhibited in its natural state, but had been placed into a tree-like mount, probably made from gilded silver. This ornate golden frame both protected and embellished the shell and made it better suited for display. Interestingly, the designer of the woodcut was more concerned with interpretation than with authenticity. While he obviously based his design on the same reliquary as the miniaturist, he was



Fig. 2.6 (above, left) Reliquary of SS Cosmas and Damian, Chalice Displaying Miners at Work, woodcut, in Hallesches Heiltumsbuch (Halle, c. 1520)

Fig. 2.7 (above, right) Reliquary of Saint Elisabeth, Mounted Nautilus Shell, woodcut, in Hallesches Heiltumsbuch (Halle, c. 1520)

Fig. 2.8 (opposite) Reliquary of Saint Elisabeth, Mounted Nautilus Shell, illuminated pen drawing, in Hallesches Heiltumsbuch, c. 1525/6 more fascinated by the shell itself than by the actual shape of the object. His curiosity with the exotic creature which once inhabited this shell is clearly expressed in this woodcut, which portrays the animal as well as the reliquary. Not knowing that the head of this mollusc resembled the head of a cuttlefish with several arms or tentacles, the artist reconstructed its body as that of a giant snail. In the reliquary collection from Halle there were quite a number of receptacles which were fashioned from rare and exotic materials such as coral, ivory, shells, coconuts, ostrich eggs and precious stones.

While many collectors in sixteenth-century Northern Europe favoured the refined artefact made from such precious and sought-after materials, *Naturalia* in their original form also occurred in private collections of the time, albeit in smaller numbers. Margaret of Austria, the regent of the Netherlands, for instance, kept a large number of coral branches in her palace. Her inventory of 1523/4 lists corals of different colour, some carved with religious scenes,⁴⁷ some uncarved.⁴⁸ She kept the majority of her



corals in one room of her palace, the so-called Cabinet empres le Jardin, and one entry in particular suggests that at least thirty-nine of these coral branches were mounted on feet of painted clay, not dissimilar to those in the collection of Ferdinand II (fig. 2.4).49 Apart from corals, she also owned different types of shells, precious stones,⁵⁰ and pearls. There is no doubt that some of these objects came from the new Indies such as the pearls⁵¹ and the 'coquilles de parle', which may well have been a nautilus shell.⁵² One of the most valuable rarities in Margaret's collection must have been the dead bird of paradise, which she kept in a small wooden box, wrapped in a piece of taffeta.53 This exotic and colourful bird, which was regarded as a most wondrous creature with no legs and strange eating habits, was first seen in Europe in September 1522,54 when one of Magellan's ships returned to Spain after the successful circumnavigation of the world. The fact that only five of these birds were brought back by the crew of the ship Victoria makes it even more remarkable that Margaret of Austria and her nephew, Emperor Charles V,55 could have secured one of these birds for each of their respective collections immediately after the birds' discovery. Collecting such trophies from the New World was not always done for reasons of curiosity or scientific interest, but was in this case also part of the public image of the Hapsburg rulers, who prided themselves on not just ruling Europe, but also having a stake in the new Americas.56

This latter aspect was obviously of less interest to those artists who meticulously studied and recorded the unusual shape and colour of exotic animals as soon as their existence became public knowledge. The earliest known representation of a bird of paradise is a faint silverpoint drawing, which dates from circa 1525 and has been attributed to Hans Baldung Grien, an artist who worked very closely with Albrecht Dürer in the first decade of the sixteenth century.⁵⁷ There are several instances where Albrecht Dürer displays a similar eagerness to observe and record unusual phenomena. In a recent article by Kirsten Seaver it has for instance been argued that Dürer studied the salted head of a walrus which was circulating Europe in 1510.58 From Dürer's notebook of his journey to the Netherlands, we also know that he went out of his way to see a large whale which had been washed up on the shore of the province of Zeeland. 59 His interest in exotic animals can be traced back to drawings of a crab and a lobster which he prepared on his first trip to Italy. Dürer's detailed and accomplished drawings are in many cases far more than preliminary sketches, jotted down spontaneously whenever the occasion arose. Not always did his studies lead to the production of an engraving or a woodcut, however, as was the case with the rhinoceros. Several of his watercolours of animals and landscapes are signed and dated, according his nature studies an artistic status comparable to that of his paintings. As suggested earlier, these drawings were soon considered artworks in their own right and rapidly became highly sought after as collector's items. But this did not prevent Dürer from reusing these images in many of his prints and paintings.

From Dürer's theoretical treatises it is evident that he believed the key to artistic success lay in the study of nature itself. In the famous aesthetic discourse at the end of the third chapter of his book on human proportions, Dürer repeatedly refers to the necessity of studying nature in all its forms and urges his readers to use nature as a measuring rod for their designs. In his eyes, God had endowed artistic people with very special creative powers and considered it the duty of the artist not to deviate too far from God's own masterpiece of creation, that is nature, and from man as part therof.⁶⁰ In one instance he addresses his fellow artists in the following way: 'But life in nature manifests the truth in these things . . . Therefore observe it diligently, go by it and do not depart from nature arbitrarily, imagining to find the better by thyself, for thou wouldst be misled. For verily, art is embedded in nature; he who can extract it has it.⁷⁶¹

No doubt Dürer himself was fascinated by the beauty and diversity of nature in all its different forms. While he captured his vivid impressions of landscapes, people, animals, plants and traditional costumes in numerous watercolours and drawings, this was not the only way in which he responded to the intense experience of the ever-expanding and changing world. In the literature on Dürer, little attention has been paid to the kind of objects which Dürer received and collected during his various trips. The main sources for the following comments are the letters sent to Willibald Pirckheimer from Venice in 1506,⁶² and especially the diary of his trip to the Netherlands undertaken in 1520/1.⁶³

In 1506 Dürer was acting predominantly as an agent for his friend Willibald Pirckheimer, who was interested in acquiring paintings for his study as well as jewels, feathers, carpets and Greek books. By 1521, however, Dürer's social status had changed enough for him to become an active collector in his own right. In his logbook Dürer noted down every major expense and kept detailed records of every exchange of gifts during his travels. Most of the items acquired for his collection were not purchased, but were received in an almost ritualistic exchange of gifts. On many occasions Dürer himself initiated this exchange, either by making a portrait drawing of the individual he targeted, or by giving away sets of prints and illustrated books. During his extended stay in Antwerp he carefully built up close relationships with specific individuals, for instance fellow artists such as Joachim Patinir, leading humanists such as Erasmus of Rotterdam, merchants and courtiers from Italy such as Tommaso Bombelli and diplomats such as the consul of Portugal, João Brandão, and his deputy, Rodrigo ('Ruderigo'). In respect to his collection of Naturalia and Artefacta, João and Rodrigo were particularly important contacts for Dürer, as they supplied him with numerous treasures from the new Indies and expressed their respect for him by providing rare and exotic food stuffs.⁶⁴ Dürer also systematically developed his contacts with politically influential people, for instance with courtiers such as Jakob Banisius and Felix Lautenschläger, who had direct access to the rulers they served.

A large proportion of the gifts Dürer received can be classified as Naturalia. He was given several branches of coral, white and red; sixteen coconuts from India; several feathers also from India; a large tortoise shell; a branch of cedar; six snail shells; a large fish scale; two dried fish; and precious stones.⁶⁵ In addition, Dürer also purchased several objects of this kind himself, for instance a magnetic stone, a small tortoise, several horns of bison, cow and ox, a few shells, and numerous claws of the elk. Both bison and elk had caught Dürer's imagination a couple of years earlier, as the watercolour of an elk and a drawing of a bison (on its verso) testify.⁶⁶ Dürer was not only interested in Naturalia, but was equally receptive to exotic and ethnographic material. Among his possessions from India were a wooden shield, a small bag made from fish skin, and various pieces of fabric made from silk and cotton. Dürer also owned three Chinese porcelain vessels, a Turkish whip, and a pipe carved from ivory.

While many of these items were gifts, the artist was quite prepared to spend his own money on such luxury goods on occasion, as the purchase of a carved ivory saltcellar from India demonstrates. For this rare artefact Dürer paid the substantial sum of three gilders; for a small skull, also carved from ivory, he paid one gilder.⁶⁷ In the early sixteenth century Antwerp truly was a centre for international trade, a place in which one could acquire all sorts of newly imported objects from the Old and the New World.⁶⁸ From Dürer's notebook we know that the artist kept a close eye on his budget and that he was always concerned about being out of pocket. In this light, the purchase of a small live monkey, a so-called 'Meerkätzlein', for the price of four gilders is very significant. He had already studied this exotic animal twenty years earlier, probably during his first stay in Venice. Soon after his return to Nuremberg it appeared in one of his prints, Madonna with the Monkey. The detailed records in his notebook reveal that this was not the only live animal Dürer kept in Antwerp. He and his wife also owned three live parrots, presented to them by the Portuguese Rodrigo.⁶⁹

Towards the end of his life Dürer had gained considerable social standing, and was accustomed to mingling with the high nobility and to dining with the ruling elite in the cities. During this time he became less content with just portraying the exotic animals he saw, but took delight in owning these creatures and other relics from foreign lands. The brief survey of the different objects and animals Dürer collected and bought during his yearlong trip to the Netherlands leaves no doubt that he was by then an active collector, although obviously on a much smaller scale than for instance Albrecht von Brandenburg or Margaret of Austria. In contrast to these collectors, Dürer bought only a small number of artworks for himself;⁷⁰ among the few works he purchased, a Salvator Mundi by Susanna Horenbout and some unspecified Italian artwork bought for the value of three gilders⁷¹ are worth mentioning.⁷² His interest in works of art by Raphael is clearly expressed by the deal he struck with Tomaso Vindicor: Dürer commissioned him to acquire either prints or drawings by the recently deceased Roman painter and paid for that agreement with his own prints.73

While some of the carved objects Dürer purchased during this period can be classified as Artefacta, they seem to be rather the exception than the rule. One of the reasons for his distinct preference for Naturalia may have been the prohibitive price of gold and silverware and other pieces of decorative art. In addition, Dürer was probably more interested in the material object in its raw form, than in an artefact fettered by the taste and imagination of another craftsman. If Dürer was searching for the mystery of nature, as the passage quoted from his book on human proportions suggests, one can assume that in his eyes the real object came closer to the truth than the man-made object which interpreted the material evidence in often bizarre ways.

This brief analysis of Dürer's notebook has shown that later in his life Dürer became an active collector in his own right, who shared a growing interest in the diversity of nature and in exotic artefacts with his fellow humanists and friends. Apart from the information gleaned from his diary and the letters to Pirckheimer, very little is known about the size, the growth and the organisation of his collection of Naturalia and Artefacta. Unfortunately, no inventories of Dürer's household have survived which would allow us to make further comments on whether he consciously arranged his collection or even developed a personal philosophy of collecting during his lifetime. In the case of Dürer, however, we do have his artistic *œuvre*, which in many ways reflects his attitude towards the visible world and provides insights into his concept of nature.

One of the most fascinating aspects of Dürer's artistic œuvre is the way in which he incorporates his observations of nature into more traditional subject matter. By enriching themes from the common pool of Christian imagery with realistic representions of plants and animals, Dürer offers new interpretations of already existing pictorial conventions. Erwin Panofsky, for instance, points out that Dürer frequently incorporated studies from a watercolour or drawing as distinct motifs in his woodcuts and engravings.⁷⁴ This practice can be observed in the engraving of the Madonna with the Monkey, in which Dürer used the study of the 'Weiherhaus' as a backdrop for a Marian scene. In several of his woodcuts which depict religious themes he employed his costume studies to highlight individual figures. The attire of the Whore of Babylon in the Apocalypse series, for example, was based on a drawing of a Venetian lady. The elaborately dressed woman which appears in the marriage scene of the Life of the Virgin series was inspired by Dürer's study of a married Nuremberg woman clothed for a visit to church. It can be surmised that Dürer used familiar scenery and contemporary dress to draw the attention of the viewer to a traditional religious scene, thus stressing the relevance of the event to the beholder.

In several of his engravings, Dürer inserted naturalistically drawn animals which had hithero not been part of the iconography associated with this scene. This applies for instance to the prints of Adam and Eve, Melencholia I, St Jerome in his Study and the Madonna with the Monkey. Most of these rendered dogs, cats and hares accurately and were probably based on preparatory drawings or independent nature studies. In the art historical literature, these animals are rarely seen as pure embellishment of a conventional scene: quite on the contrary, because of the novelty of the depiction, their presence has often prompted far-reaching interpretations. In the case of the Madonna with the Monkey, the ape is not seen exclusively as an example of Dürer's interest in exotic animals, but is generally interpreted as a symbol of lewdness and sin. In this case one could therefore argue that Dürer aimed at combining his interest in the exotic 'Meerkätzlein' with traditional symbolism and successfully forged together two separate categories of painting, the nature study and the Marian image. According to Panofsky and Strauss, the ape has now been chained to the grassy bench and has thus turned into a subservient animal. The 'Meerkätzlein' has become part of an idyllic scene, which is ruled by the calm presence of Mary and the Christ child.⁷⁵

By 1500 the insertion of symbolic plants and animals that had been studied from nature was a reasonably long tradition both in Netherlandish and German art, as can be seen for example in the Ghent Altarpiece by Hubert and Jan van Eyck or the Frankfurt Paradiesgärtlein by an anonymus middle-Rhenish master. Many species from nature's cornucopia that had been imbued with specific symbolic meaning by medieval writers were portrayed in a most realistic fashion by fifteenth- and sixteenth-century artists. The frequency with which these motifs occur in contemporary paintings suggests that the most common symbols were known to the general public. Several plants and animals, however, were less impregnated with traditional symbolism and therefore provided some room for interpretation by the artist who designed a painting or a print. This was particularly true for newly found species and exotic materials which had not yet been given a set meaning.

A small painting by Hugo van der Goes in the Kunsthistorisches Museum in Vienna illustrates this point (fig. 2.9).⁷⁶ In the innovative representation of The Fall of Man, Adam and Eve are shown in an unspoilt Garden of Eden, filled with illusionistic representations of rich and diverse plant life. This artist was particularly concerned with botanical diversity in paradise. He deviated from existing pictorial conventions by adding an abalone shell, a coral branch and precious stones to the river of paradise on the lower right. Evidently fascinated by the beauty of a newly discovered mother of pearl shell, van der Goes incorporated this and other examples of Naturalia into already existing frameworks, attributing to the abalone, the jewels and the coral branch almost paradisiacal qualities. His approach to traditional subject matter is not dissimilar to Dürer's own way of thinking. Both artists seem to be eager to incorporate newly gained knowledge and freshly made observations into their pictures.

In this context Dürer's Madonna with a Multitude of Animals, a fine coloured drawing dating from circa 1503 (fig. 2.10),⁷⁷ deserves to be looked at more closely. In this carefully executed drawing, Dürer's interpretation of the Virgin and Child theme is taken a step further than in the Madonna with the Monkey. The central group has again been portrayed in a naturalistic setting, but is now surrounded by a stretch of a landscape which is filled with narrative detail. In the middle ground the figure of Joseph has been





Fig. 2.9 (left, opposite) Hugo van der Goes, The Fall of Man, after 1475, oil on wood

Dürer, Madonna with a Multitude of Animals, c. 1503,

Fig. 2.10 (above) Albrecht pen and dark brown ink, watercolour, brush



Fig. 2.11 Madonna with a Multitude of Animals, detail added to the scene, while the shepherds and the Magi appear in the background. As the title suggests, the foreground of this image has been populated with an unusually large number of animals, more than twenty different species in all. Apart from the larger animals, such as the dog lying on the ground and the fox on a leash, we can detect a parrot, a crab, a snail, a butterfly, a dragonfly, a stag beetle, a common beetle, a frog, an owl, numerous smaller birds and swans (fig. 2.11). The plant life is equally varied and the individual flowers, such as the peonies, irises and strawberries, have been arranged with the same attention to detail.⁷⁸ Looking at Dürer's immensely rich and varied output of Marian scenes it becomes obvious that he enjoyed playing with a given set of motifs, which he liked to interpret and extend in an infinite number of ways. In the 1518 woodcut of Madonna, Queen of Angels (fig. 2.12), for instance, angels and putti present a number of symbolic attributes to the viewer, some of which are apparent references to the Virgin and the Christ-child.⁷⁹ The playfulness conveyed by the putti in the foreground also characterises an earlier pen drawing, the Holy Family, in which the music-making angels are accompanied by two rab-



Fig. 2.12 Albrecht Dürer, Madonna, Queen of Angels, 1518

bits.⁸⁰ While the main artistic concern of this drawing is not so much the symbolic meaning of the individual animals but the spatial relationship between figure, nature and built environment, Dürer equally experiments with integrating the Virgin-and-Child group into a more complex setting.

In the Madonna with a Multitude of Animals the fastened fox takes on a similar role as the monkey in the Madonna with the Monkey. The fox, an animal which is generally seen as the wicked seducer, is portrayed here as 'evil tamed'.⁸¹ In several art historical interpretations of this drawing, the fox becomes the cornerstone for the hypothesis that initially all animals in the picture were imbued with symbolic meaning, meaning which we no longer understand. Anzelewsky, for instance, argues that Dürer's independent nature studies should be seen, in the first place, as transmitters of symbolic meanings, whenever the artist made these studies part of a more coherent pictorial context, regardless of whether that context was a religious or a secular one.⁸² Anzelewsky's main source for unravelling the meaning of the various animals in this particular picture is the Physiologus, a Greek text on Christian animal symbolism which informed many medieval writers.⁸³ Whether Dürer intended his drawing to be a pictorial catalogue of late medieval symbolism based on one major literary source, however, remains open for discussion.

In the Vienna drawing of the Madonna with a Multitude of Animals we are looking at one of three images of the same subject which have come down to us.⁸⁴ The creative process, by which Dürer gradually explores his chosen theme, is clearly reflected in these three drawings. In the earlier Berlin drawing, for instance, many of the animals occurring in the Vienna version can also be found, yet in a different position. The dog, for instance, now appears by himself on the right, far removed from the stag beetle on the left. In the Paris drawing, however, a different set of animals has been chosen to populate a similar setting. Here the two most prominent animals, the fox on the leash and the dog on the ground, have been replaced by a crane holding a fish and a few smaller animals. Yet surprisingly, the overall effect achieved in the finely executed Paris drawing is still quite similar to the atmosphere created in the Vienna drawing. Judging from the individual treatment of the theme in these three related versions, one can conclude that the choice of individual animals was not fixed from the start and that the deeper meaning of the scene was not wholly dependent on a narrowly defined selection of plants and animals.

Dürer attempts to fuse his disparate animal and plant studies with traditional Christian imagery in the Madonna with a Multitude of Animals, and thus suggests a fresh interpretation of a conventional subject matter. By finding a new context for the fox, the stag beetle, the crab and the parrot, all animals now peacefully coexist in an environment which recalls life before the Fall.⁸⁵ A butterfly has landed on the back of the terrier, who himself makes the acquaintance of the fierce-looking stag beetle. By carefully distributing the animals across the picture plane, Dürer creates new meaning and encourages the viewer to take a fresh look at traditional images. In this idyllic portrait of the world, humankind is in harmony with nature, for the image of the Virgin and Child among the multitude of animals seems to offer spiritual peace in a time of upheaval and change.

After the middle of the sixteenth century more and more private collectors expressed their understanding of the universe by the way in which they arranged their treasures, attempting to create a microcosm in macrocosm, to produce De wereld binnen handbereik, as an exhibition in Amsterdam put it.86 Dürer's acute interest in nature and the universe manifested itself in different ways. The paramount value he attributed to the direct study of nature is clearly expressed in his own writings and in his extraordinarily beautiful watercolours of plants, animals and the natural environment. Dürer's role as collector of Naturalia and Artefacta revealed another less recognised facet of his interest in nature. In the world of the collector, the real object exists next to the image based on nature. By arranging and ordering these remnants of the real world, the collector defines man's place in the universe according to his own set of values and beliefs. Dürer undoubtedly shared the rising interest in rare and precious objects. In addition to collecting Naturalia, he also expressed his view of the world by translating what he saw and experienced into works of art. In the case of the Madonna with a Multitude of Animals it can be argued that Dürer created a microcosmic image of the world which reflected his notion of an ordered universe. In this instance, the process of designing an image corresponded to the collector's aspiration to give shape to his collection in his cabinet.

2 NATURALIA AND ARTEFACTA: DÜRER'S NATURE DRAWINGS AND EARLY COLLECTING

- P. Burke, The Renaissance (London, 1993), especially ch. 3, pp. 27–48; J. Overfield, 'Germany' in R. Porter and M. Teich (eds.), The Renaissance in National Context (Cambridge, 1992), pp. 92–122; D. R. Kelly, Renaissance Humanism (Boston, 1991), especially pp. 55–73; see also the chapter by Larry Silver below.
- 2 J. L. Koerner, The Moment of Self-Portraiture in German Renaissance Art (Chicago/London, 1993), p. 37.
- 3 J. C. Hutchison, Albrecht Dürer. A Biography (Princeton, 1990).
- 4 Hans Weiditz, for instance, portrayed a number of Amerindian acrobats and commented in some detail on their dress and their customs in the so-called

Trachtenbuch; see J. M. Massing, 'Early European images of America: the ethnographic approach', in A. Levenson (ed.), Circa 1492. Art in the Age of Exploration, exh. cat., Washington, National Gallery (New Haven/ London, 1992), pp. 517–18 and p. 572.

- 5 W. Prinz, 'Die Kunst und das Studium der Natur im 14. und 15. Jahrhundert in Italien', in W. Prinz and A. Beyer (eds.), Die Kunst und das Studium der Natur vom 14. zum 16. Jahrhundert (Weinheim, 1987), pp. 5–16.
- 6 G. Pass, 'Dürer und die wissenschaftliche Tierdarstellung der Renaissance' in F. Koreny (ed.), Albrecht Dürer und die Tier- und Pflanzenstudien der Renaissance. Symposium (Vienna, 1987), at p. 58; see also

M. Kemp, 'Taking it on trust: form and meaning in naturalistic representation', Archives of Natural History 17 (1990), 127–88.

- 7 Pass, 'Wissenschaftliche Tierdarstellung', p. 59; see also Kemp, 'Taking it on trust', 127–88.
- 8 P. Parshall, 'Imago contrafacta: images and facts in the northern Renaissance', Art History 16 (1993), 554–97; Kemp, 'Taking it on trust', 127–88.
- 9 See also the widespread tradition of copying works by Dürer in the later sixteenth century: F. Koreny, Albrecht Dürer and the Animal and Plant Studies of the Renaissance, exh. cat., Albertina, Vienna (Boston, 1988); H. Geissler, 'AD VIVUM PINXIT. Überlegungen zu Tierdarstellungen der zweiten Hälfte des 16. Jahrhunderts', in Koreny (ed.), Tier- und Pflanzenstudien, pp. 101–14.
- 10 Koreny, Animal and Plant Studies, p. 166; F. Anzelewsky, M. Mende and P. Eeckhout, Albert Dürer aux Pays-Bas, son voyage, 1520–1521, son influence, exh. cat., Palais des Beaux-Arts (Brussels, 1977).
- II J. M. Massing, 'The quest for the exotic: Albrecht Dürer in the Netherlands', in Levenson (ed.), Circa 1492, pp. 115–19.
- Pass, 'Wissenschaftliche Tierdarstellung', pp. 57–67;
 T. H. Clarke, The Rhinoceros from Dürer to Stubbs, 1517–1799 (London/New York, 1986).
- 13 J. Rowlands with Giulia Bartrum, Drawings by German Artists and Artists from German-speaking Regions of Europe in the Department of Prints and Drawings in the British Museum (London, 1993), vol. 1, p. 91.
- 14 H. Rupprich (ed.), Dürers schriftlicher Nachlass (Berlin, 1956), vol. 1, p. 208; Rowlands, Drawings, vol. 1, p. 91.
- 15 The words krot or Kröte generally stand for 'toad' but can also be read as a short form for 'tortoise', whereas the word Schildkröte only refers to tortoises.
- 16 Rowlands, Drawings, vol. 1, pp. 46-7.
- 17 A. A. Shelton, 'Cabinets of transgression: Renaissance collections and the incorporation of the New World' in J. Elsner and R. Cardinal (eds.), The Cultures of Collecting (London, 1994), pp. 177–203, at p. 194.
- 18 Hutchison, Dürer, p. 141; the original text has been published in Rupprich (ed.), Schriftlicher Nachlass, vol. 1, p. 155.
- O. Impey and A. MacGregor (eds.), The Origins of Museums. The Cabinet of Curiosity in Sixteenth- and Seventeenth-Century Europe (Oxford, 1985); E. Bergvelt, D. J. Meijers and M. Rijnders (eds.), Verzamelen. Van Rariteitenkabinet tot Kunstmuseum (Heerlen, 1993); A. Grote (ed.), Macrocosmos in Microcosmos. Die Welt in der Stube. Zur Geschichte des Sammelns 1450–1800 (Opladen, 1994); Wunderkammern des Abendlandes. Museum und Sammlung im Spiegel der Zeit, exh. cat. (Bonn, 1995).

- 20 Shelton, 'Cabinets', pp. 177-203.
- 21 Massing, 'Quest', p. 115 and pp. 298-9.
- 22 This drawing was owned by Willibald Imhoff, the grandson of Willibald Pirckheimer, and then entered Rudolf II's collection; Koreny, Animal and Plant Studies, p. 84.
- 23 Impey and MacGregor (eds.); Origins, B. J. Balsinger, 'The Kunst- und Wunderkammern. A catalogue raisonné of collecting in Germany, France and England, 1565–1750', Ph.D. thesis, University of Pittsburgh (1970); E. Scheicher, Die Kunst- und Wunderkammern der Habsburger (Vienna, 1979).
- 24 M. Kemp and others have addressed the diversity in the structure of collections and in the motivation behind establishing a collection. M. Kemp, ' "Wrought by no artist's hand": the natural, the artificial, the exotic, and the scientific in some artifacts from the Renaissance', in C. Farago (ed.), Reframing the Renaissance. Visual Culture in Europe and Latin America, 1450–1650 (New Haven/London, 1995), pp. 176–96, at p. 189; see also Balsinger, 'Kunst- und Wunderkammern'.
- 25 Many individuals are representative of this trend, for instance Duke Jean de Berry or King Charles V; K. Pomian, Der Ursprung des Museums. Vom Sammeln (Berlin, 1993); L. Brieger, Die großen Kunstsammler (Berlin, 1993); see also Gabriel Kaltemarkt's comments in 1587, cited in B. Gutfleisch and J. Menzhausen, "How a Kunstkammer should be formed." Gabriel Kaltemarckt's advice to Christian I of Saxony on the formation of an art collection, 1587', Journal of the History of Collections 1 (1989), 3–32, at 9.
- 26 H. Budde, 'Das "Kunstbuch" des Nürnberger Patriziers Willibald Imhoff und die Tier- und Pflanzenstudien Albrecht Dürers und Hans Hoffmanns', in Koreny (ed.), Tier- und Pflanzenstudien, pp. 293–341;
 P. Fleischmann, 'Anmerkungen zum Patriziat und zu Kunstsammlungen des 16. Jahrhunderts in Nürnberg', Kunst des Sammelns. Das Praunsche Kabinett. Meisterwerke von Dürer bis Carracci, exh. cat. (Nuremberg, 1994), pp. 13–24; R. Schoch, ' "Die kostbarste unter allen nürnbergischen Kunstkammern", Glanz und Ende des Praunschen Kabinetts', Kunst des Sammelns, pp. 25–34.
- 27 'Zur Entstehung von bürgerlichen Kunstsammlungen', Der Mensch um 1500. Werke aus Kirchen und Kunstkammern, exh. cat. (Berlin, 1977), pp. 37–47; E. Landolt, H.-R. Hagemann, S. V. Hoerschelmann and F. Ackermann, Das Amerbach-Kabinett. Beiträge zu Basilius Amerbach (Basel, 1991).
- 28 See note 21 above; H. Bredekamp, Die Geschichte der Kunstkammer und die Zukunft der Kunstgeschichte (Berlin, 1993).

- 29 S. Quiccheberg, Inscriptiones vel tituli theatri amplissimi ..., Munich, 1565; also Bredekamp, Geschichte, pp. 33-5; Harriet Hauger, '"Samuel Quiccheberg: Inscriptiones Vel Tituli Theatri Amplissimi". Über die Entstehung der Museen und das Sammeln', in W. Müller, W. Smolka and H. Zedelmaier (eds.), Universität und Bildung. Festschrift Laetitia Boehm zum 60. Geburtstag (Munich, 1991), pp. 129-39.
- 30 Gutfleisch and Menzhausen, 'Kunstkammer', 3-32.
- 31 E. Schulz, 'Notes on the history of collecting and of museums', Journal of the History of Collections 2 (1990), 205–18, at 205; Balsinger, 'Kunst- und Wunderkammern', pp. 540–60.
- 32 Schulz, 'Notes on the History of Collecting', 206 lists Quiccheberg's first three groupings as follows: category 1 (1) sacred objects, paintings and artistic works; (2) genealogy of the founder, portraits; (3) other founders of collections; (4-10) maps, topographical views, illustrations of monuments; category 2 Artefacta, e.g. goldsmith products, stone, wood, glass, exotic vessels and marble, weights and measures, coins and portrait medallions; category 3 (1) Naturalia, e.g. organic material, plants, roots, fruit; (2) 'Unaltered nature'; (3) modelled nature, that is manufactured materials; (4) tools of man. See also Bredekamp, Geschichte, p. 34, who characterises the two next categories; category 4 Exotica, ethnographic materials: weapons, dress and dolls in folk dress, valuable family jewels and dress, musical and astronomical instruments, technical instruments; category 5 paintings, drawings, prints.
- 33 E. Scheicher, 'The collection of Archduke Ferdinand II at Schloß Ambras: its purpose, composition and evolution', in Impey and MacGregor (eds.), Origins of Museums, pp. 29–38; P. Parshall, 'The art collection of Ferdinand, Archduke of Tyrol', Jahrbuch der Kunsthistorischen Sammlungen in Wien 78 (1982), 139–84.
- 34 L. Seelig, 'The Munich Kunstkammer, 1565–1807', in Impey and MacGregor (eds.), Origins of Museums, pp. 76–89.
- 35 The armoury was of particular importance to the Duke and a section of this collection was the first to be catalogued and published under the title Armentarium Heroicum in 1601; Scheicher, 'Collection', p. 30.
- 36 Bredekamp, Geschichte, p. 35; the 1596 inventory of Archduke Ferdinand II has been published in Jahrbuch der Kunsthistorischen Sammlungen des Allerhöchsten Kaiserhauses, 7:2 (1888), 279–303; 10 (1889), 1–10.
- 37 R. Fludd, Utriusque cosmi historia (Oppenheim, 1617), as referred to in Scheicher, 'Collection', p. 32.

- 38 Ibid., pp. 32-3.
- 39 E. Scheicher, O. Gamber, K. Wegener and A. Auer, Die Kunstkammer, Kunsthistorisches Museum, Sammlungen Schloß Ambras (Innsbruck, 1977), pp. 137–8.
- 40 Ibid., pp. 37-8.
- P. Redlich, Cardinal Albrecht von Brandenburg und das neue Stift zu Halle 15 20–15 41, Eine kirchen- und kunstgeschichtliche Studie (Mainz, 1900); P. M. Halm and R. Berliner (eds.), Das Hallesche Heiltum. Man. Aschaffenb. 14 (Berlin, 1931); A. Tacke, Der katholische Cranach (Mainz, 1992).
- 42 Hallesches Heiltumsbuch, Halle, 1520 (copy held in National Gallery of Victoria), fo. Pi: 'Ein silbern ubergulter kopff obin mit silbern und guldenem erze/ dorynne ist/ ein grob stuck vom haupt sancti Cosme.
 iiii partikel S. Cosme/ iii schone stuck vom haupt St. Damiani.' See also Halm and Berliner, Hallesche Heiltum, vol. 1, cat. no. 218, 51; vol. 11, fig. 123; D. Eichberger, 'Dürer and the Printed Book', in I. Zdanowicz (ed.), Albrecht Dürer in the Collection of the National Gallery of Victoria (Melbourne, 1994), pp. 63–82 and pp. 217–18; D. Eichberger, 'A Renaissance reliquary collection in Halle, and its illustrated inventories', Art Bulletin of Victoria 37 (1996), 19–36.
- 43 Agricola's book on mining and the local industry in Saxony gives a good impression of the size of the mining industry and its significance for the time; Georg Agricola, Dere metallical libri XII (1556).
- 44 Scheicher et al., Kunstkammer, p. 26.
- 45 Halm and Berliner, Hallesche Heiltum, vol. 1, fig. 178, cat. no. 332, p. 65; J. Rasmussen, 'Mittelalterliche Nautilusgefaeße', in J. Rasmussen (ed.), Studien zum europäischen Kunsthandwerk. Festschrift Yvonne Hackenbroch (Munich, 1983), pp. 45–61, at p. 52.
- 46 See note 43 above. The printed version had been commissioned by Albrecht on the occasion of the consecration of the church. Little is known about the illustrators; however, it has been suggested that at least four of the woodcuts were executed by Wolf Traut, one of the artists working in Dürer's workshop. Meister um Albrecht Dürer, exh. cat., Germanisches Nationalmuseum (Nuremberg, 1961), pp. 219–20, cat. 393.
- 47 'Inventaire des vaisselles, joyaux, tapisseries, peintures, manuscrits, etc. de Marguerite d'Autriche, régente et gouvernante des Pays-Bas, dressé en son palais de Malines, le 9 juillet 1523' (Paris, B.N. ms. 128, Cinq Cents de Colbert), published by H. Michelant in Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique, Bulletin, 3 series 12(2) (1870), 109.

- 48 Ibid.
- 49 In the inventory of 1523 this room is characterised as 'the cabinet next to the garden, where the corals are' in order to distinguish it from the rest of the private apartments. Paris, B.N. ms. 128 Cinq Cents de Colbert, fo. 103r reads: 'Item, XXXIX aultres ramures de coral rouge, assises sur petiz piedz de terre painct de verd dont les cinq sont belles et grandes et les XVI moiennement belles et le reste bien petite et en partie cassee'; also fo. 102v, 'Item une belle grosse ramure de coral blanc non polie assise sur ung pied de terre painct de verd'; and fo. 102r/v, 'Item une aultre belle ramure de coral rouge a plusieurs branches a ladit ramure ou est en partie le mistere de la Passion N(ot)re S(ei)g(neu)r taille de mesme coral lequel part d'ung roc de sa nature et naissance.' Ferdinand II also often displayed branches of plain, uncarved coral, which he grouped with shells and snails in order to recreate their natural environment; Scheicher et al., Kunstkammer, p. 139.
- 50 Michelant, 'Inventaire de vaisselle', 94.
- 51 Ibid., 134.
- 52 Ibid., 105.
- 53 Ibid., 96.
- 54 Koreny, Animal and Plant Studies, pp. 100-2.
- 55 In October 1522 one bird of paradise had been bought from the captain of the ship for Emperor Charles V, Margaret's nephew, 'so that he may delight in its rarity and splendour'; ibid., p. 100, n. 2.
- 56 In the case of Margaret of Austria, the majority of the Indian artefacts were on display in her library; P. Vandenbroeck, 'Amerindian art and ornamental objects in royal collections. Brussels, Mechelen, Duurstede, 1520–1530', in America. Bride of the Sun, exh. cat. (Antwerp, 1992), pp. 99–119; see also D. Eichberger and L. Beaven, 'Family members and political allies: the portrait gallery of Margaret of Austria in Mechelen', Art Bulletin 77 (1995), 225–48.
- 57 Koreny, Animal and Plant Studies, pp. 100-3.
- 58 K. A. Seaver, 'A very common and usuall trade". The relationship between cartographic perceptions and "fishing" in the Davies Strait circa 1500–1550', British Library Journal 22 (1996), 9–11; see also Rowlands, Drawings, p. 100.
- 59 Hutchison, Dürer, p. 152.
- 60 Rupprich, Schriftlicher Nachlass, vol. 111, pp. 191, 292 and 294.
- 61 Quoted in Koreny, Animal and Plant Studies, pp. 13–14; original text published by Rupprich, Schriftlicher Nachlass, vol. 111, p. 295.
- 62 Rupprich, Schriftlicher Nachlass, vol. 1, pp. 39-60.

- 63 Ibid., vol. 1, pp. 146–202; see also Hutchison, Dürer, pp. 127–69.
- 64 Rupprich, Schriftlicher Nachlass, vol. 1, p. 165; Massing, 'Quest', p. 118.
- 65 For Dürer's possession of these items and those listed below, see Rupprich, Schriftlicher Nachlass, vol. 1, pp. 152, 156, 158, 162, 164–6, 172, 174–6. A number of these items were gifts, given to Dürer by the Portuguese consul, João Brandão, and his deputy, Rodrigo, by his innkeeper, Jobst Planckfelt, by a goldsmith from Brussels called Jan, by Bernard Stecher, Rudiger von Gelern, Lazarus von Ravensburg and Lorenz Sterk.
- 66 Rowlands, Drawings, p. 76.
- 67 Rupprich, Schriftlicher Nachlass, vol. 1, pp. 160, 165.
- 68 H. Van der Wee and J. Materné, 'Antwerp as a world market in the sixteenth and seventeenth centuries', in Antwerp, Story of a Metropolis. Sixteenth–Seventeenth Century, exh. cat. (Antwerp, 1993).
- 69 One of them was a small green parrot (Rupprich, Schriftlicher Nachlass, vol. 1, p. 154); the other, a parrot from Malacca (ibid., p. 175); we also learn that Agnes Dürer had to buy a cage for the birds. See also Massing, 'Quest', p. 117.
- 70 'Hans Ebners Täfelein', Rupprich, Schriftlicher Nachlass, vol. 1, p. 158.
- 71 Ibid., p. 165.
- 72 Ibid., p. 172.
- 73 Ibid., p. 158; see also: Hutchison, Dürer, p. 144.
- 74 E. Panofsky, The Life and Art of Albrecht Dürer, fourth edition (Princeton, 1971), p. 82.
- 75 Ibid., p. 67; W. L. Strauss, The Complete Engravings, Etchings and Drypoints of Albrecht Dürer, second edition (New York, 1973), p. 42.
- 76 A. Balis et al., Flämische Malerei im Kunsthistorischen Museum Wien (Zurich, 1989), pp. 20–1; K. Demus, F. Klauner and K. Schütz, Flämische Malerei von Jan van Eyck bis Pieter Brueghel d. Ä. (Vienna, 1981), pp. 189–92; J. Sander, Hugo van der Goes. Stilentwicklung und Chronologie (Mainz, 1992), pp. 44–90.
- 77 Koreny, Animal and Plant Studies, pp. 114-18.
- 78 C. Eisler, Dürer's Animals (Washington/London, 1991), pp. 31-56.
- 79 The bunch of grapes, the pot with lilies and the playing of heavenly music all belong to traditional Marian iconography. Some of the attributes held by the putti on the left cannot be identified.
- 80 Holy Family, 1509, Basle, Öffentliche Kunstsammlung, Kupferstichkabinett, reproduced in F. Anzelewsky, Dürer. Werk und Wirkung (Stuttgart, 1980), fig. 150, p. 164.

- 81 Koreny, Animal and Plant Studies, p. 118; this reading is also supported by the page in the prayer book of Emperor Maximilian, which shows the fox playing the flute to seduce the chicken and rooster.
- 82 F. Anzelewsky, 'Pflanzen und Tiere im Werke Dürers. Naturstudien und Symbolik', in Koreny (ed.), Tier- und Pflanzenstudien, p. 33.

`

- 83 Ibid., p. 40.
- 84 Koreny, Animal and Plant Studies, pp. 116-17.
- 85 Eisler, Dürer's Animals, p. 43.
- 86 E. Bergvelt and R. Kistemaker (eds.), De 'wereld' binnen handbereik. Nederlandse kunst- und rariteitenverzamelingen, 1585-1735, exh. cat. (Zwolle, 1992).