

***And in this he showed me a little thing, the quantity of a hazelnut, lying in the palm of my hand, it seemed, and it was as round as any ball. I looked thereupon with the eye of my understanding, and I thought, 'What may this be?' And it was answered generally thus: 'It is all that is made'.***

**Julian of Norwich<sup>1</sup>**

# THE BOXWOOD CARVERS OF THE LATE GOTHIC NETHERLANDS

Frits Scholten

'INGENIOUS LITTLE APPLES' AND LITTLE WOODEN NUTS

When the immensely rich Dutch tapestry weaver and diplomat Pieter Spiering (1594/96–1652) died he left a large art collection in his Vijversteyn country house in Rijswijk, just outside The Hague.<sup>2</sup> It included a very curious little object that he had bought from the estate of his deceased father François (c. 1576–1631), which was described in 1653 as 'a little wooden apple which can be opened in two halves, the interior with four little wings that can be opened, very artfully made, for which the [owner's] late father had been offered one hundred pounds sterling in England, and for that reason it is estimated at ten hundred guilders here'.<sup>3</sup> Around the same time there was a similar object in the collection of the Arnhem nobleman Joost van Cranevelt (before 1615–1662), which in a manuscript description the owner called 'an ingenious apple, carved from boxwood'.<sup>4</sup> Both apples must have been extremely costly heirlooms. The very high valuation of 1,000 guilders was equal to half the value of Spiering's entire print collection, and in 1633 Van Cranevelt devoted a twenty-page study to his, which had been in his family for generations.<sup>5</sup>

Van Cranevelt's 'ingenious apple' has survived, so we know exactly what he was talking about.<sup>6</sup> It is a small wooden ball with a diameter of 65 millimeters decorated all around with an intricate openwork pattern of regularly interlaced Gothic air bladder motifs,



FIGS. 1, 2, 3

behind which there is a hollow space [FIG. 1]. This tracery work is interrupted in the middle by a double molded collar containing carved Latin texts that run around the entire circumference. A hinge and clasp enable the 'little apple' to be opened up into two halves like a spherical box or booklet. The top half contains two semicircular little doors adorned with thinly carved scenes in circular reliefs, which hinge open to the sides to reveal a very delicately carved scene with numerous minuscule figures on several receding levels [FIG. 2]. The bottom half of the apple originally had a singular round door that hinged downwards to reveal a similar scene, as is the case with a prayer nut in Munich [FIG. 3]. Around both scenes, which depict events from the life of Mary Magdalen, there are text borders with fitting Latin inscriptions in a Gothic *textura*. The Gothic meshwork, the lettering and the style of carving date this 'prayer apple' to the late Middle Ages. Around sixty-five of these apple-shaped Gothic micro-sculptures survive today, and although there are variations in size and the complexity of construction and finish, they all broadly follow the same principle of two hinged hemispheres containing incredibly small religious scenes, some of them with accompanying Latin (and very occasionally Middle Dutch) texts.

The use of the word 'apple' was inspired first and foremost by the shape, for other spherical shapes were referred to as apples in the sixteenth and seventeenth centuries.<sup>7</sup> For instance, the little ball that was hung as a weight on the hood of a cope was called a *pomellum*,<sup>8</sup> and the scent balls that had been carried

on belts, rosaries and in clothing since the fifteenth century were called *pommes d'ambre* in French, which was bastardized into 'pomander' in both Dutch and English and rendered into German as *Bisamapfel* [FIG. 67].<sup>9</sup> The suspicion that there was also a functional connection between those 'cosmetic' pomanders and the boxwood prayer apples through the insertion of an aromatic substance in the hollow space between the carved scenes and the external Gothic meshwork is as yet unproven, although some of the inscription on the micro-carvings do allude to pleasant aromas.<sup>10</sup>

The historical name of 'apple' for such boxwood devotional objects may also have incorporated an association with the forbidden fruit of Paradise, not in the sense of the Fall of Man but, quite the reverse, of salvation history: the covenant between God and mankind that was restored by Christ's sacrifice on the Cross after the disobedience of the first human couple. This is illustrated by the many late medieval *Andachtsbilder* of the Christ Child and the Virgin in their roles as the new Adam and Eve, with an apple as the central motif [FIG. 4].<sup>11</sup> That association is supported by the fact that the boxwood 'prayer apples' were used in the personal practice of prayer, and that most of them are connected with subjects from salvation history.<sup>12</sup> In addition, apples play a prominent part in Dutch devotional literature for the laity in this period, in which flowers and fruit in a garden are regularly presented as symbol ways of participating in Christ's Passion. In the popular little book titled *Die geestelicke boomgaert der vruchten*



FIG. 4

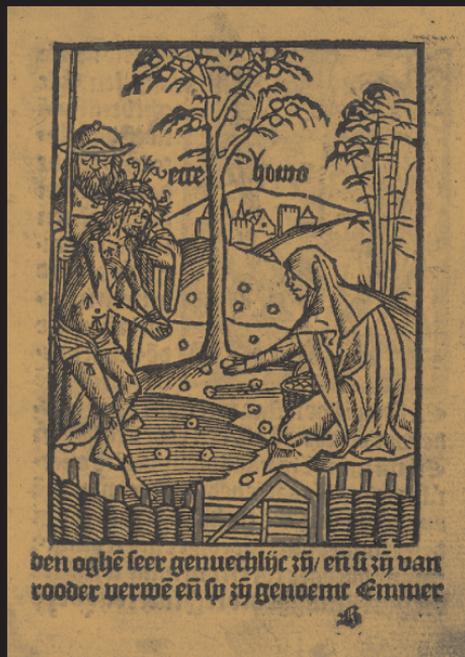


FIG. 5

*daer die devote siel haer versadicht vanden vruchten der passien Christi* (The spiritual fruit garden where the devout soul is satiated with the fruit of Christ's Passion), which was reprinted seven times between 1515 and 1546, the believer's soul is led past three gardens from Christ's Passion.<sup>13</sup> In Pilate's garden it is invited to pluck or pick up the surfeit of apples and eat them under the eye of the captive Jesus ('Ecce homo') [FIG. 5]. 'In the first I [Christ] shall invite you, my beloved bride [the soul], to eat of this noble tree which is heavy with abundant fruit that is so pleasing to the eye and that is coloured red and is called the Emmer [amber] apple.'<sup>14</sup>

The modern name for these prayer apples is derived from the fruit of another tree, the walnut. This designation – prayer *nut*, *gebedsnoot*, *noix de chapelet*, *Betnuss* – also dates from the sixteenth century, although it is rarely used in the written sources from that period. One example is found in an entry recording two 'nuez de madera' with micro-carving in the 1548 inventory of the Spanish marchioness Mencía de Mendoza y Fonseca (1508–1554).<sup>15</sup> She undoubtedly obtained those 'wooden nuts' in the Netherlands, where she lived for some time after her marriage to Count Hendrik III of Nassau (1438–1538). He was one of the leading Netherlandish nobles at the court of Emperor Charles V, and the couple lived by turns in Breda, Brussels and Turnhout between 1530 and 1539.<sup>16</sup> A hundred years later the Bishop of Tournai (Doornik) stipulated in his will that he was to be buried with a 'noix' containing a depiction of the Crucifixion.<sup>17</sup> The association of such devotional

objects with walnuts came from the medieval notion that they were a symbol of Christ, with the outer husk standing for the Passion, the hard shell for the strength of faith, and the kernel for Christ's divinity.<sup>18</sup> The names 'nut' and 'prayer nut' may be due to micro-carvings in real nuts and pits, which was a specialty of southern German peasants and craftsmen.<sup>19</sup> The delicately carved hazelnuts from Oberammergau were being singled out for praise as early as 1508 by the Florentine Francesco Vettori.<sup>20</sup> The term 'prayer nut' only really took hold in the nineteenth century, weakening the typological and etymological ties with the late medieval little apples and pomanders in the process.<sup>21</sup>

#### BOXWOOD

The one thing that most of these miniature objects have in common, apart from their apple shape and breathtakingly delicate decoration, is the material from which they are made. Boxwood (*Buxus sempervirens*) is a heavy and compact but also very delicately structured kind of wood that is ideal for small carved and turned work. Affordances that were recognized at an early date include the fact that it takes on an evenly soft and tactile surface when polished or frequently handled.<sup>22</sup> In classical antiquity, for instance, polished boxwood tablets were used for learning how to draw and paint, as Pliny writes in his life of the Greek painter Pamphilus.<sup>23</sup> A fourteenth-century French source states that the wood was a popular material for writing tablets ('tables pour écrire'), statuettes ('ymages de buix';



FIG. 6



FIG. 7

FIG. 6) and containers for storing herbs ('boites qui sont bonnes a garder especes').<sup>24</sup> John Evelyn, the well-known seventeenth-century English diarist, listed some other uses to which it was put: measuring and musical instruments, combs [FIG. 7], nutcrackers, pestles and chess pieces.<sup>25</sup> Because boxwood grows slowly the trunks are never very thick, and that partly determines the small size of the objects that are made from it. In the Netherlands the wood has wrongly been referred to since the Middle Ages (and still is) as 'palm wood', which may be intended to suggest that it came from the Holy Land. According to medieval sources, such as Jacob da Voragine's *Legenda aurea*, Petrus Comestor's *Historia scholastica* and Johannes Brugman, a well-known fifteenth-century preacher from Nijmegen, the Cross was made partly from palm wood.<sup>26</sup> In reality, most boxwood came from north-western France until around 1600, from Picardy and Normandy in particular.

In its applications and popularity in the late Middle Ages boxwood closely resembled the more exotic and even more expensive ivory. However, whereas ivory was often partly polychromed, most boxwood objects from the period were either not painted at all or only lightly, which is an indication of the intrinsic value that was put on the material. The lack of polychromy on the outside of prayer nuts and other boxwood products could be associated with the use and tactility of the wood, which is lost when it is painted, but that of course does not apply to the minuscule scenes on the inside. There, though, polychromy would have detracted from legibility, quite

apart from the difficulty of effectively coloring such tiny and complex scenes.<sup>27</sup> The monochrome nature of these devotional objects, on the other hand, could stimulate the imagination of the meditating user to 'color' the scenes in his or her mind's eye.<sup>28</sup>

#### THE 'ADAM DIRCKSZ WORKSHOP'

Another common feature of most prayer nuts is their style, which was pointed out in Leeuwenberg's trail-blazing article of 1968.<sup>29</sup> He was the first to pose the question of the origins, manufacture and dating of these remarkable micro-carvings. In the process he noted a high degree of stylistic consistency in the pieces known to him. He pointed out that several prayer nuts had Dutch inscriptions, and that one in Copenhagen is actually signed 'Adam Theodrici me fecit' [FIG. 8].<sup>30</sup> He converted the name into the Dutch 'Adam Dircksz', and concluded that this Dircksz was responsible for an entire group of prayer nuts and related devotional objects. Since then, though, the prevailing opinion is that these micro-carvings were not the work of a single artist but must have been produced in one or more workshops in or near the Low Countries.<sup>31</sup> Leeuwenberg's attribution to a single maker may have been too heavily influenced by a slightly old-fashioned art history that focused predominantly on individual artists and too little on the identification of workshops and other forms of association, but it warrants reconsideration.

That is because careful study has indicated that the bulk of the prayer nuts, and that of many other micro-sculptures as well, such as miniature taber-



FIG. 8

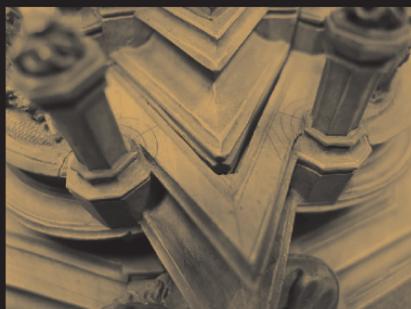
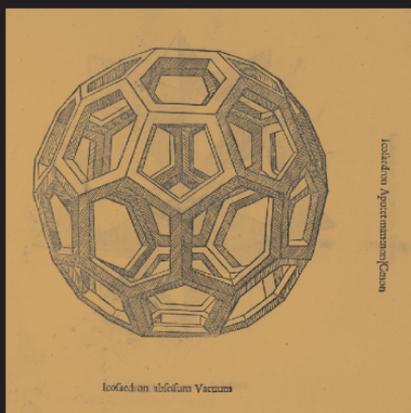


FIGS. 9, 10, 11, 12

nacles [FIG. 9] and altarpieces [FIG. 10], do indeed form a stylistically and technically homogeneous group distinguished by a craving for detail that testifies to a certain *horror vacui*, but also by a spatial approach to stage management and exploitation of depth along sight lines through vistas [FIG. 11].<sup>32</sup> It is true that some scenes are worked up in far more detail than others, with more complex compositions and many more figures, but that points to a higher class of luxury rather than to different makers [FIG. 12, and cf. FIG. 3]. Ingenious and effective variation was made with a number of personages and motifs within this stylistically coherent group.<sup>33</sup> Although almost all the objects are very original there is a certain amount of standardization. The models and size of the prayer nuts are fairly constant, ranging from around 30 to approximately 65 millimeters in diameter. The carvers tended to vary the Gothic openwork tracery, depending on the size of the nut, although sometimes it was repeated literally. The turning, drilling and carving of the outer shape was more or less standardized work that could easily be done by one or more assistants working from existing patterns.<sup>34</sup> Such a flexible, efficient way of working in a homogeneous style and in one kind of material indicates a specialist workshop headed by a single craftsman responsible for the artistic side of the work.<sup>35</sup> To put it another way, the small scale of the objects and the bespoke execution also required a small-scale operation which from now on we shall call the 'Adam Dircksz workshop', and which could perhaps best be compared to that of a silversmith or miniaturist [FIGS. 13, 14].<sup>36</sup> The work-

shop was active in the first three decades of the sixteenth century, with its heyday between 1510 and 1525,<sup>37</sup> and in view of its specialist nature was probably located in a large city.<sup>38</sup>

Study of all the surviving objects from the shop leave one with the impression of an erudite, inventive and innovative environment organized by someone with a modern, self-assured vision of the practice of art. Given the complexity of the designs, Dircksz and his assistants must have had a thorough grounding in geometry and were familiar with the contemporary literature on the subject.<sup>39</sup> He may have known the treatise *De divina proportione* (Milan 1509) by the Franciscan Luca Pacioli (1445–1514), which includes examples of polyhedra that recall the form of several complex prayer nuts from his workshop [FIGS. 15, 16]. And should one not regard the incised construction lines and turning marks that are visible here and there, on the retable in the Wallace Collection, for instance [FIG. 17], which is his *magnum opus*, as ‘sophisticated hints’ to the user that Dircksz had a thorough understanding of the rules of geometry?<sup>40</sup> When found on works that stand out for their incredibly painstaking finish and detail, they are too noticeable to be dismissed as ‘carelessness’. Rather, they are part of the widespread tendency towards playfulness in late medieval architecture. Other examples of artistic wit include the presence of miniature prayer beads hanging on a wall in a scene of the Magi in an Amsterdam prayer nut, which are also found in a monstrance in Munich.<sup>41</sup> It is a self-referential motif that refers directly to the use of these beads when saying the rosary [FIG. 18].



FIGS. 13, 14, 15, 16, 17



FIG. 18

Until recently it was generally assumed that the origins of this micro-carving should be sought in the southern Netherlands, partly because of their high quality and the broad compositional similarities to the large Flemish and Brabantine altarpieces, but in the past few years it has become clear that most of the documented early owners came from the more northern provinces of Holland and Zeeland.<sup>42</sup> A remarkable number of them also had a direct link with Delft, which is a reason to look tentatively for Dircksz and his shop in that city in Holland.<sup>43</sup> The great variation among the surviving boxwood objects indicates that the shop did not go in for mass-produced works for the open market, as was often the case with a wide variety of artistic crafts in the southern Netherlands.<sup>44</sup>

It is unclear what the artistic and technical antecedents of the Dircksz workshop were. It is as if this exquisite sculpture was born *ex nihilo* around 1500, but that is not very likely. Giant strides are rarely made in art history, and the work of micro-carving – the great talent, the incredible technique and the boundless imagination of the makers – would have been rooted in that of predecessors and contemporaries. Although the formal repertoire of the micro-carvers and the scale of their works display an affinity with the silversmith's art, above all with the micro-architecture of ecclesiastical silver and ornaments [FIG. 19], the virtuoso technique, constructions and compositions are anchored in the late fifteenth-century sculptural traditions of the Low Countries. It was the large altarpieces with their

complex Gothic decorations and series of narrative scenes, the tabernacles, pulpits [FIG. 20], choir stalls and small sculptural objects like domestic altarpieces, Christmas cribs [FIG. 21],<sup>45</sup> or perhaps even musical instruments,<sup>46</sup> that provided the fertile breeding ground for the micro-art of the Dircksz workshop.

**'ADAM THEODRICI ME FECIT'?**

The artistic self-assurance of Adam Dircksz and his assistants manifests itself not only in their virtuoso technique and astonishing inventiveness but also in the signature 'ADAM THEODRICI ME FECIT' in the Latin that is used in most of the inscriptions on his works [FIG. 22]. Such a record of the maker's name was still fairly rare, certainly in early sixteenth-century sculpture.<sup>47</sup> A medieval tradition of mentioning the name of the artist, and particularly in the 'me fecit' form, making the object speak, as it were, is known mainly from bronze bells, canon and mortars.<sup>48</sup> Did 'Adam Theodrici' opt for Latin in imitation of that bronze founders' tradition? Or was it intended as a display of erudition to impress his learned clients? It is a puzzle, though, why he only signed one work, as far as we know, and not even his most ambitious one at that. In addition, this particular prayer nut is one of the few works out of more than sixty in which he repeated himself [FIG. 23]. Are we to interpret the signature as a sign of pride from the workshop's early years? Or was this particular object intended for a special customer that actually remained with the artist, perhaps as a display model? An alternative reading is also possible, one that



FIGS. 19, 20, 21, 23



FIG. 22

could explain why no other micro-carvings are signed, namely that 'Adam Theodrici me fecit' does not refer to the maker at all but to the client. At first sight that seems to be at odds with the Latin formulation 'me fecit' (has made me) instead of the more customary 'me fieri fecit' (has had me made), but there is a minor medieval tradition whereby the client claims in the inscription the role of the metaphorical maker of a work of art.<sup>49</sup> The relatively rare forename also bolsters the suspicion that it was the client behind the signature and not the artist, for Adam occurs remarkably frequently as a name in the regent families of Delft from around 1500 until well into the seventeenth century,<sup>50</sup> and it is in that elite social class that two other prayer nuts from the same group of micro-carvings are documented.<sup>51</sup> One of them also bears the name of its first owner, 'eewert ianz va[n] bleiswick' (Evert Jansz van Bleyswijck). It is significant, too, that there was an Adam Dircksz among the Delft patriciate around 1500, but it would be premature to tie him to the Copenhagen prayer nut, the more so because he died in 1505. He was the prosperous brewer Adam Hendricksz (i.e. Dircksz; 1420–1505). His son was Dirck Aemsz (i.e. Adamsz) van der Burch (d. 1531), a priest at the Habsburg court in Brussels who was closely involved in the Delft devotion to the Seven Sorrows of the Virgin.<sup>52</sup> Another member of the family was Jodocus or Joost Aemsz van der Burch (b. c. 1495), a counsellor to Emperor Charles V in Brussels whose self-confident appearance was immortalized by Jan van Scorel [FIG. 129].<sup>53</sup>

The great inventiveness displayed by the Dircksz workshop fits seamlessly within the cultural boom that the Burgundian Netherlands and neighboring countries enjoyed in the fifteenth and sixteenth centuries. It was marked by numerous artistic and technical innovations, such as the development of oil paint, the introduction of book printing, and print-making. Novelties of that kind increasingly found their way to the wealthy bourgeoisie. The rise of the *Devotio Moderna*, a religious movement that originated in the Low Countries, with active, individual and personal experience of faith as its central tenet, boosted the demand for personal devotional objects as aids to private devotion and prayer.<sup>54</sup> The same was true of the rosary, which took root among broad swathes of the population in north-western Europe in the course of the fifteenth century.<sup>55</sup> This is well-illustrated by the man selling devotional objects in the left foreground of the famous Leiden woodcut of *The Ship of St Stony-Broke* of around 1525 [FIG. 24].

The workshop of our Holland micro-carver met the same religious demand among the upper strata of society, but the purchasers of his luxury items were also motivated by a desire to glorify their status. This is typified by the fact that although a number of Dircksz's most expensive products were ordered by the Habsburg court and members of its entourage, this courtly art was soon being snapped up by newly rich city-dwellers.<sup>56</sup> In addition to prayer nuts, which made up by far the bulk of the workshop's range, there were complete rosaries [FIGS. 66, 100, 111, 134],

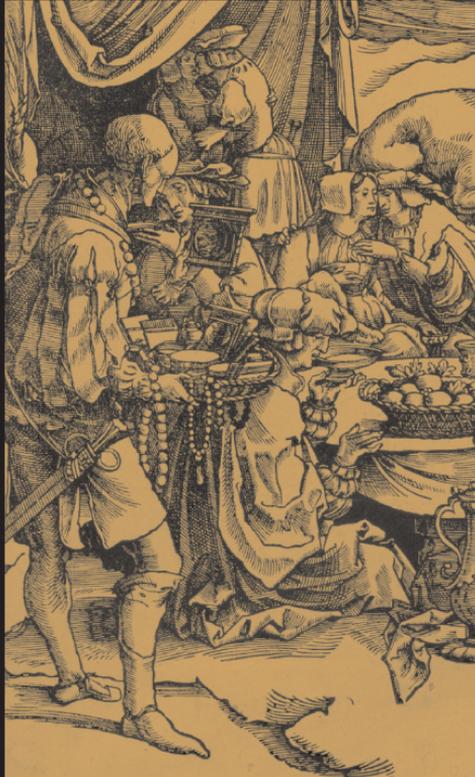


FIG. 24



FIGS. 25, 26, 27, 28, 29

*memento mori* pendants in the form of coffins [FIG. 25], miniature altarpieces [FIGS. 11, 29, 114, 123, 162, 168, 174] and devotional 'tabernacles' or 'monstrances' [FIGS. 9, 26, 40, 42, 83, 146]. The standard scenes of the Nativity or Passion were the most common, but there are very few exact repetitions [FIGS. 8, 23].<sup>57</sup> Moreover, they are often found in combination with more unusual scenes or uncommon saints [FIG. 27]. Such special commissions with a personal iconography and inscription, sometimes accompanied by coats of arms [FIG. 28], the client's name [FIG. 126] or even small donor figures and their patron saints [FIG. 115], are typical of the custom-made work from this shop.<sup>58</sup> Standard features are the scenes and ornamentation in Late Gothic style, but *all'antica* Renaissance motifs were introduced quite casually at a remarkably early date, such as the pilasters flanking the central scene in a triptych dated 1511 [FIG. 29].<sup>59</sup> It is not unusual to find both styles existing alongside each other in the early decades of the sixteenth century. Occasionally, too, the choice of a particular style was explicitly left up to the client.<sup>60</sup>

Most of the boxwood devotional objects have inscriptions in the Gothic *textura* or in capitals of the humanist *antiqua*, with brief biblical or liturgical texts in Latin. These incised legends should usually be interpreted in conjunction with the carved scenes in the prayer nuts, small altarpieces and other objects. Some of them are the *incipit* of an appropriate hymn and are an incentive to prayer or recitation. Others were borrowed from suffrages and appeal to a saint for intercession or protection. They turn the object

into a kind of talisman or amulet, as in the case of a prayer nut dedicated to two popular saints, Sebastian with his ability to ward off the plague and Christopher with his concern for the safety of travelers [FIG. 30]. In yet other cases the inscriptions serve as 'captions' to the scenes with which they interact as memory aids. Occasionally a section of the original text would be omitted at a strategic point and replaced by the carved scene itself, creating an artful 'dialogue' between text and image.<sup>61</sup> For example, a border inscription taken from St Matthew's gospel announces the moment when the three Magi enter the stable in Bethlehem, just as the user of the prayer nut does with his eyes, but a long passage is omitted that describes the actual adoration: 'When they saw the star, they rejoiced with exceeding great joy. And when they were come into the house [they saw the young child with Mary, his mother, and fell down, and worshipped him: and when they had opened their treasures] they presented unto him gold, frankincense and myrrh.' The users could fill in the omitted (between square brackets above) passage with their own eyes, and could actually add symbolic gifts in the form of prayers they composed themselves. They might even have seen the parallel between 'opening of their treasures' and the opening of the prayer nut they had in their hands.

It is worth pointing out that these short Latin inscriptions were familiar fare for the users, who had learned Latin from the liturgy and at school. Students, for example, were taught at an early age to memorize religious texts, stories and anecdotes by noting



FIG. 30



FIGS. 31, 32, 33, 34

epigrammatic words, aphorisms and *sententiae*, as Erasmus had instructed his readers.<sup>62</sup> That is probably why it is no coincidence that the note held by the twelve-year-old scholar who had his portrait painted by Jan van Scorel in 1531 has the same Latin aphorism as on the outside of a prayer nut: 'OMNIA DAT DOMINVS NON HABET ERGO MINVS' ('The Lord provides everything and yet has nothing less'); [FIGS. 31, 32].

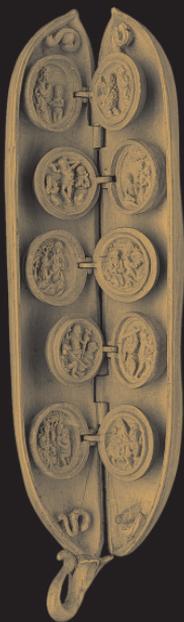
The Dircksz workshop's range of expensive 'religious playthings' included totally new and ingenious objects that were developed to cater to the demand from this exclusive market segment. In addition to prayer nuts, which were a typological novelty in themselves, and paternosters [FIG. 33], it made *memento mori* pendants in the form of coffins with contents [FIG. 34], simpler bas-reliefs, initials that were probably intended as special, personal gifts for royal personages [FIGS. 106–09], knife handles and miniature retables, both simple triptychs and more complex ones in several stacked layers which could sometimes take on the form of a tabernacle tower [FIGS. 26, 153].

A tendency towards naturalism that was already manifesting itself in the coffins is also evident in two boxwood carved 'prayer pods'. One of them opens to reveal five small peas, each of which can be opened in its turn and contains a minuscule biblical scene, among them the Creation and the Expulsion from Paradise, as well as the Crucifixion and the Resurrection [FIG. 36]. The choice of the legume form is puzzling, and may have something to do with the symbolism of a few fifteenth-century miniatures that

has itself not yet been adequately unraveled, such as one in the *Book of Hours of Catherine of Cleves*, in which opened pods frame the main scene [FIG. 37].<sup>63</sup> Broad beans were traditionally associated with death and the souls of the dead, and peas with unborn children, fertility and new life.<sup>64</sup> Such associations are consistent with the small scenes in the five legumes of this wooden prayer pod.

The second one, although admittedly less ingenious in construction, has a subject that is exceptional in the oeuvre [FIG. 38]. The interior consists of two fairly low reliefs that no longer have a religious function but are devoted to the erotic and women's wiles. On the left is a scene of Joseph falling prey to the seductive but sly wife of Potiphar. His fate is presaged by the ape in the dungeon at the bottom. On the right is Paris judging the beauty of the three nude goddesses Juno, Minerva and Venus.<sup>65</sup> Both scenes reflect the growing fascination with eroticism in early sixteenth-century northern art, which manifested itself in the depiction of the sensual female nude in all kinds of mythological scenes and statuettes.<sup>66</sup> In that sense this prayer pod can be regarded as an early forerunner of eighteenth-century tobacco boxes with erotic scenes on the inside.

Two *de luxe* knife handles of boxwood can also be attributed to the Adam Dircksz workshop on stylistic grounds. They consist of a vertical structure of arched compartments containing miniature carved scenes separated by floral Gothic patterns and traceries [FIG. 39]. Their design recalls the small scenes placed one above the other in large altarpieces or in printed



FIGS. 36, 38, 37, 35

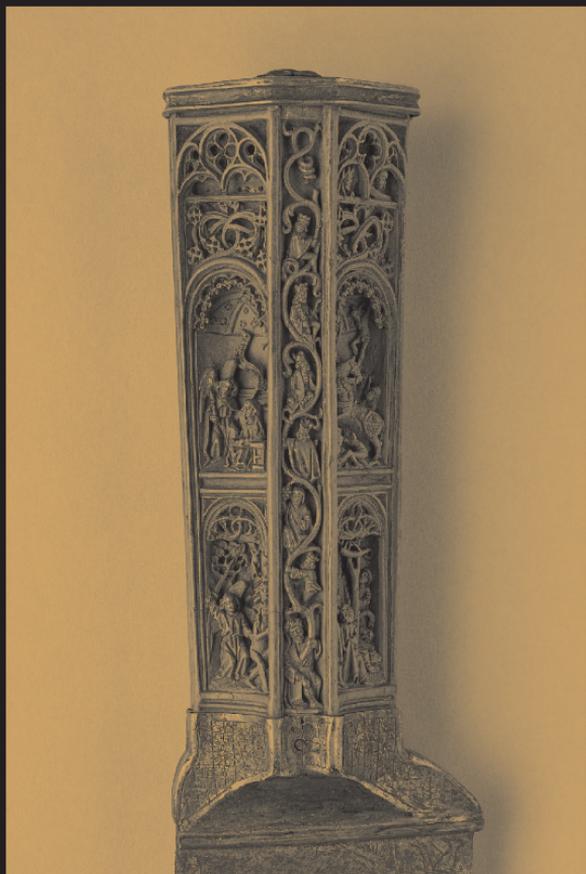


FIG. 39

prayer books, and could have been inspired by prints by the Monogrammist AC (Allaert Claesz?).<sup>67</sup> These handles may have been occasional pieces that belonged to a set, for they have the same Middle Dutch inscription: 'Blyt is sonder verganc, Ghetrov min leven lanc' ('Happiness is without end, faithfulness my whole life long').<sup>68</sup> Incidentally, this type of cutlery handle had a successor in the late sixteenth and first quarter of the seventeenth century in a series of interrelated specimens with dates ranging from 1585 to 1626.<sup>69</sup>

The most ingenious precious pieces from the Adam Dircksz workshop are two complex objects that are a little larger and were made for patrons from the very highest social circles. The larger of the two, in the British Museum's Waddesdon Bequest, once belonged to Emperor Charles V, whose imperial coat of arms is on the accompanying case.<sup>70</sup> The slightly smaller one comes from the Munich *Kunstammer* of Duke Albrecht V of Bavaria, and is traceable for the first time in the inventory that his son and successor, Wilhelm, ordered to be made in 1598 [FIGS. 40, 146]. It is described there as a 'Monstränzl', or small monstrance, a term that is comparable to the 'en forma de custodia' from the Spanish inventory of 1558 mentioned below.<sup>71</sup> Strictly speaking, though, it is not a monstrance at all, the purpose of which is to display the Host to the congregation, but evidently no more adequate term could be found for this extraordinarily novel item. As it happens, Fickler, who inventoried the Munich *Kunstammer* in 1598, used the word for other objects as well, always in the formal sense of something on

a tall foot like a proper monstrance,<sup>72</sup> and it is also found in that sense in the Prague inventory of Emperor Rudolf II for a clock on a tall, lobed foot.<sup>73</sup> The form is indeed midway between that of a monstrance, with its intricate architectonic structure, and a chalice, with its tulip-shaped cover. However, it also contains echoes of extravagant Late Gothic church furniture in stone and wood, such as Master HW's tulip pulpit in Freiburg Cathedral (1505–08), in which complex traceries alternate with figurative scenes [FIG. 41], or even of the bizarre floral fountains in Jheronimus Bosch's *Garden of Earthly Delights*.<sup>74</sup> As with other Late Gothic architecture and liturgical objects, the decorative tracery work of the monstrances is no longer subordinated to an underlying structural skeleton, but itself dictates and articulates the actual form of the design. As with the prayer nuts, ornament and form almost merge into one, and the sturdiness of boxwood was ideal for that.

By far the largest object to leave the workshop is a spectacular tower that stands 44 centimeters high on a triangular base [FIGS. 42, 43].<sup>75</sup> The central section opens like the wings of a triptych to reveal a number of extremely detailed scenes surrounding the Nativity, while the exterior is decorated with many Old Testament scenes.<sup>76</sup> This too is a novelty item, a miniature altarpiece that has taken on the form of a tabernacle or baptismal font and can be regarded as the typological successor to the so-called tower retable.<sup>77</sup> The formal resemblance to a work like the brass font of 1446 in the church in Halle, Belgium, or to the exuberant structures by Jan Gossaert is



FIGS. 40, 41, 42, 43



FIG. 44

remarkable [FIG. 44].<sup>78</sup> Such connections with fountains, fonts, tabernacles, choir screens and other highly imaginative micro-architecture (although 'micro-architecture' is a somewhat inappropriate term for such work when compared to the truly microscopic carved work in boxwood),<sup>79</sup> are legion in the works that came from the Adam Dircksz workshop, and testify to a thorough knowledge of monumental Late Gothic architecture and sculpture.

There is a far smaller and thus almost more virtuoso version of this masterpiece, which follows the latter's form and iconography very closely [FIGS. 9, 26]. Should it be regarded as a spectacular attempt to move the technical boundaries by almost halving the scale from 44 to 27 centimeters, or was it a trial model for the larger work? It seems, in fact, that there was a third version that belonged to Mary of Hungary (1505–1558), the sister of Emperor Charles V who was appointed governor of the Netherlands in 1531 and inherited the art collection of her aunt, Margaret of Austria.<sup>80</sup> Mary's Spanish inventory of 1558 lists a wooden object 'in the form of a monstrance with many carved narratives and depictions of figures. Is made in the shape of a triangle with many narratives therein from the Testament, Old and New, and the Creation of Adam, and above, finally, the Tree of Jesse, a pelican at the top with its black box.'<sup>81</sup>

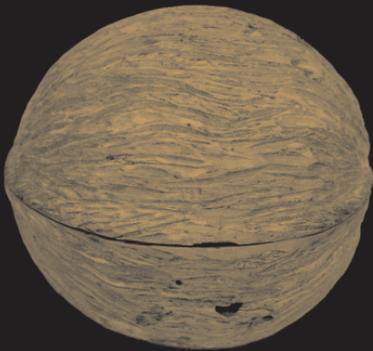
#### COMPETITION

There were other producers of micro and miniature boxwood carvings in the Low Countries apart for the Dircksz workshop, but none of them succeeded in

building up such a consistent and high-quality oeuvre.<sup>82</sup> The most surprising was the recent discovery of an anonymous follower of Dircksz who tried to ride on the back of his success with inferior imitations. He was only partially successful, for his output must have been very small. The only two known prayer nuts from his hand also lack the technical virtuosity and artistic inventiveness of their model. One, in fact, is a shameless copy of a prayer nut with *The Adoration of the Magi* from the Dircksz shop, in which the copyist even borrowed the virtuoso detail of a movable hanging ring from the superior original [FIGS. 45, 46]. In style and construction, though, his work is totally different. He carved in a rather primitive way from front to back, and used a background scene that was inserted separately.<sup>83</sup> It seems logical to situate this 'pseudo Adam Dircksz' in Holland too, for that would explain how he had access to the master's Magi prayer nut, which may come from an old Amsterdam collection. In addition, the only other known carving by the copyist is preserved in a silver box with the assay mark of Amsterdam and the master's mark of an Amsterdam silversmith of the Das family.<sup>84</sup> The special nature of this second micro-carving is that it contains two rare Old Testament scenes of *David and Jonathan* and *David Playing the Harp for Saul* [FIG. 47], which might be allusions to the client's forename of David, and the fact that it does not have the familiar Gothic tracery work but, surprisingly, an attempt to give the nut the naturalistic look of a real walnut [FIG. 48].



FIGS. 45, 46



FIGS. 47A-B, 48

A third workshop specialized in the production of prayer nuts as 'portraits' and *memento mori* symbols.<sup>85</sup> They take the form of a very realistically carved miniature skull or 'Janus head' – half flesh, half skull – or a head of the Virgin, and can be opened like a prayer nut to reveal two religious scenes within [FIGS. 49–52]. However, they lack the technical virtuosity of the Dircksz group. In view of the presence of the coats of arms of two original German clients, Hans Imhoff of Nuremberg and Cardinal Albrecht von Brandenburg, this shop was probably not located in the Low Countries but in Germany [FIGS. 147, 148].<sup>86</sup>

#### 'SUBTILITAS', VIRTUOSITY AND HYPERTECHNIQUE

At the end of the sixteenth century the carving of the prayer nuts and 'Monstränzl' by the Dircksz workshop in the Munich *Kunstkammer* was described in the inventory as 'subtil'.<sup>87</sup> Although not synonymous with small, the term is also found elsewhere in the inventory, mainly in connection with very small scenes or objects, and invariably in combination with the method of manufacture (carved, turned).<sup>88</sup> Joost van Cranevelt used the word in 1633 in the lengthy description of his prayer nut in order to characterize the delicacy of a minuscule carved chandelier.<sup>89</sup> 'Subtiel' is first recorded in Dutch in the thirteenth century as a borrowing from Old French, and since then it has acquired several more or less related meanings, like 'fine', 'refined' and 'thin'.<sup>90</sup> For example, it was used to denote the fineness of fabrics, a sense that is also related to the Latin roots of the word (*subtilitas*, meaning 'something that is woven'),<sup>91</sup> but in a more

figurative sense it could also mean 'ingenious', 'skillful' or 'craftsmanlike'.<sup>92</sup> For example, it was stipulated in the contract of 1493 with the sculptor Adam Kraft for his tabernacle in the Sankt Lorenzkirche in Nuremberg that the upper registers of his Gothic architecture, which at more than 18 meters in height made them difficult to read from the ground, naturally had to be made artfully and well, but not as 'subtilig' as the lower registers.<sup>93</sup> In this case the word evidently also implied a high degree of laboriousness and labor intensity.

In a more general sense *subtilis* had stood since the Middle Ages for amazing technical skill and refined execution, and was associated with astonishment and admiration for the way in which something was made. It also has an association with illusionism, not so much in the sense of deceiving the eye or solely to impress artistically, but above all to lead the beholder to something of higher value.<sup>94</sup> The latter undoubtedly played a role in 'subtle' micro-carving, in which the amazement and enticement sprang from the total incomprehension as to how it was done. The astonishment at the incredible craftsmanship of the woodcarver and his tools is almost always evident in early descriptions of such small treasures.<sup>95</sup> Even in the late eighteenth century the author of a pamphlet about a seventeenth-century art apple, who was actually a watchmaker himself, pondered: 'It also seems incomprehensible which tools the maker has used and how he managed to control and use them to excavate and work the farthest and deepest chambers and rooms.'<sup>96</sup> A few decades



FIGS. 49, 50, 51, 52



later John Penniman ended his description of a prayer nut in Salem with the words: 'I know not with what instruments all this could have been effected; but it is manifest that they must have been as delicately formed, as the hand that managed them was adroit.'<sup>97</sup>

It is obvious that the micro-carvers were blessed with the keenest eyesight and very steady hands, and were armed with the most delicate array of instruments: miniature knives, gouges, awls, tiny drills and a magnifying glass. A set of tools used by the Italian micro-carver Ottaviano Jannella (1635–1661) gives an idea of them [FIG. 253].<sup>98</sup> In this context the observations of Richard Sennett in his sociological study *The Craftsman* sum up the situation perfectly. Although he was not discussing micro-carvers, he did make surprising connections between the skills of diverse 'subtle' specializations. For instance, he drew attention to the universal importance that is attached to a restrained use of the knife through the application of the least force necessary and the immediate withdrawal of force once the cut has been made. And the smaller the scale involved the greater the self-control required. Long before the Christian era Chinese cooks were told that the basis of good cookery was the ability to slice a grain of rice precisely through the middle. This may be an apocryphal tale, but there is a great deal of truth in it.<sup>99</sup> It is the same essential quality that the micro-carvers must have developed when working with a knife or gouge in order to make their works with an accuracy of millimeters, for the size of a grain of rice is very compa-

able to that of details in the scenes in prayer nuts. When examining them under extreme magnification one is struck by how the tiny figures from Adam Dircksz's workshop are nearly as good as their monumental equivalents, and by the almost super-human control with which they must have been carved [FIGS. 35, 73].

Another quality that Sennett singled out is the interplay between eye and hand and the concentration it demands. When the maker attains a truly high level of craftsmanship he tends to lose the sense of physical contact with the object on which he is working. The maker and the nascent product become one, as it were, or in Sennett's words: 'we are now absorbed *in* something, no longer self-aware, even of our bodily self. We have become the thing on which we are working.'<sup>100</sup> For that matter, the observer can also experience a similar sensation. 'I was only an observer, but somehow it felt as if I were creating the object I was observing, creating it in the act of seeing it', said the woodcarver David Esterley when confronted with the staggering carvings of his seventeenth-century predecessor Grinling Gibbons.<sup>101</sup>

While the pieces from the Dircksz workshop can in fact be regarded as one great demonstration of *subtilitas* and technical skill, that unparalleled mastery was also subtly accentuated with a few specific details. In the Wallace tabernacle, for instance, a series of prophets with banderoles wait to be discovered by the discerning viewer in an almost impossible position behind a strip of waving open-work branches, and on the right wing of the same



FIG. 53



FIGS. 54, 55

tabernacle there is a minuscule carved basket for the sacrificial doves at Jesus' circumcision [FIG. 53]. In several prayer nuts and altarpieces with the Crucifixion the craftsman carved wafer-thin lances among the swarm of soldiers and onlookers, or cut loops in the ropes binding the good and bad thieves to their crosses [FIGS. 3, 29, 73]. The most astonishing detail in a limited number of prayer nuts and altarpieces is a minuscule, movable ring hanging freely on a wall [FIG. 54]. It measures a mere 1.5 millimeters in diameter and does not seem to have any iconographic function. The same applies to a movable sphere hanging from the lance of a soldier in a miniature triptych in the Waddesdon Bequest [FIG. 55], while the movable rosary in the 'Monstränzl' in Munich reminds its owner of the object's devotional use [FIG. 18]. Moving parts like this are above all a demonstration of a 'hyper-technique' that served to entertain the cosseted public while at the same time amazing them with the maker's mastery.<sup>102</sup>

Nowadays we would label such a display of staggering technical ability with the term 'virtuosity', but that word was not used in that sense in the late Middle Ages. However, that does not mean that there was no awareness of it. The equivalents could have been 'manly' (derived from the Latin *vir*), 'strong' and 'vigorous', words that mean 'daring' in modern usage.<sup>103</sup> In many works of art from the late fifteenth and early sixteenth centuries it seems that daring mastery, the demonstration of inimitable artistic, technical and compositional complexity that pushed the boundaries of the genre or medium was an end

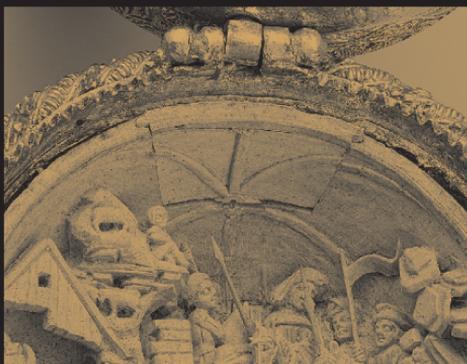
in itself. Such hyper-technical virtuosity is apparent in Franco-Flemish polyphonic music and courtly poetry, with their extremely complex formal structures and word combinations,<sup>104</sup> in the complexity of Late Gothic architecture and micro-architecture that are so closely related to the work of our micro-carver,<sup>105</sup> in the illusionism of illuminated manuscripts from Bruges and Ghent, or in the supremely delicate, postage-stamp engravings of the Monogrammist AC [FIG. 56].

The virtuosity of Adam Dircksz and his workshop is evident not only in their manual dexterity but also in a certain inventiveness, which is an aspect that Sennett does not discuss.<sup>106</sup> It manifests itself, for example, in the constant variation in compositions. As we have seen, there are barely any exact replicas in the workshop's output, not even in relatively frequent Passion iconographies. What makes that all the more surprising is that contemporaries, as opposed to modern researchers, were in no position to realize the exclusiveness of the micro-carvings.

One also finds inventiveness in an artifice designed to raise the viewer's amazement to an even higher pitch. There is a small hatch in the vaulted ceilings of several prayer nut scenes that makes it possible to reach and carve more of the deeper parts from above without damaging the foreground [FIG. 57]. Concealing the edges of the hatch along the ribs of the vaults made it impossible for the viewer to understand precisely how the background carving was done. That same technique is also found in a Nativity group of around 1470, in which the Virgin's voluminous



FIG. 56



FIGS. 57, 58

cloak is undercut so deeply that the carver first had to saw part of it out and replace it later [FIG. 58].<sup>107</sup>

#### A TACTILE COSMOLOGY

The standard boxwood exterior with openwork tracery is absent on a prayer nut in the Rijksmuseum. In its place is a luxury casing of silver with delicate engraving.<sup>108</sup> One half has six animals among foliage and flowers [FIG. 59], while the other side is occupied by a nude woman [FIG. 91] and four men – one with a spade, another one poking a fire, a fisherman and a falconer [FIG. 60]. Their attributes identify them as the personifications of the four Aristotelian elements of earth, fire, water and air. Each one is taming, manipulating or utilizing nature. The woman is pointing towards her pudendum and breasts, and can be regarded as a lewd and vain counterpart of a monkey in the other register.<sup>109</sup> That monkey and the other animals can be interpreted as symbols of lust and sin, and jointly stand for wild, sensual and untamed nature.<sup>110</sup> The user of this handy ‘world sphere’ is urged to go on a quest by the minuscule Gothic text in the meandering banderoles around the five human figures: ‘SOKET VAER GHI VILT HIER VINDET IN D ARDE IN VUER IN VATER INDEN LUCHT’ (‘Seek where ye will, ye find it here, in the earth, in fire, in water, in the air’). The spherical shape, the personifications of the four elements, the injunction to carry out a search and the literal contrast between untamed nature and culture turn this prayer nut into a microcosm, an elementary, pocket-sized representation of the world.<sup>111</sup> In so doing, the artistic game of reduc-

tion and scale that is so intrinsic to micro-carving is pursued further, but now in a cosmological context. It unintentionally evokes a famous vision of Julian of Norwich (1342–c. 1416), in which the entirety of creation is likened to a hazelnut.<sup>112</sup>

Shortly after 1500 the classic contrast between nature and culture became the organizing principle in the royal collections of art and rarities, the *Kunst- und Wunderkammern*.<sup>113</sup> In the course of the sixteenth century micro-carving made its appearance at the encyclopedic crossroads of nature, art, science, technology and game.<sup>114</sup> It tied in with the fascination for the incomprehensibly small and virtuosic that had been a special category in princely art collections since the fifteenth century. Miniature sculptures were included as man-made *mirabilia* in this new microcosm, where amazement and *curiositas* were the main driving forces.<sup>115</sup> Perhaps partly inspired by Pliny's account of extremely small carved ivories from classical antiquity, what was virtuoso and small became fashionable.<sup>116</sup> Ownership of such objects exuded a symbolic force, a certain power over nature, and that always appealed to the grandes and the rich.<sup>117</sup> For instance, Margaret of Austria's *petit cabinet* in Mechelen was not only a small room but also the place where the small gems of her collection were kept – costly, exotic and artistically valuable little objects, such as painted miniatures, small ivory boxes, medals, timepieces, gemstones and corals, gold and silver work and miniature sculptures, and thus a direct forerunner of the *Kunst- und Wunderkammer*.<sup>118</sup> It was in this small world that the



FIGS. 59, 60



Dit zeer konstlyk Silver-balletje, het  
 Welk uyt twee deelen bestaat, in welk een  
 Aller Vyftmblintende Leekening, uyt  
 gesnede Houwt-werk te vinden is—  
 en in Zyn Ronde, en Holligheit, niet  
 grooter is als  $\frac{1}{2}$  Duym in Zyn bewerking  
 Vind men —

Aan

Deze Schray

is  $\frac{1}{2}$  Duym

boxwood letter M was kept that was described in her inventory of 1524 as 'vne belle M de bois, bien taillee', which came from the Adam Dircksz workshop [FIG. 106].<sup>119</sup> Forty years later, in 1565, Duke Albrecht V of Bavaria (1550–1579) transferred a group of small valuables from his *Kunstkammer* to a separate *Schatzturm*. They included a Netherlandish prayer nut [FIG. 3],<sup>120</sup> and the provenance of other religious micro-carvings can also be traced back to such sixteenth and seventeenth-century princely collections.<sup>121</sup> It is very likely that these little boxwood works of art had been intended from their very inception on the micro-carver's workbench for a market of pampered art lovers and collectors, and not as pure aids to meditation. There was probably no sharp dividing line between religious use, play and amazement at the virtuoso carving.<sup>122</sup> This is suggested by the fact that many prayer nuts show barely any traces of wear, which one would have expected if they were regularly used in meditation. They would mainly have been cherished and admired as ingenious trinkets. Seen in that light the micro-carvings lie at the interface of two related traditions: religious and spiritual experience, and the consumption of art, at the point where the internalized viewing of late medieval private devotion turns into an external looking, amazement and wonderment at art.

The silver prayer nut in Amsterdam has been preserved since the eighteenth century in a specially designed box [FIG. 61]. The opened nut lay in the bottom drawer, with room for a magnifying glass in the top drawer. There is a small piece of paper explaining

what can be seen in the nut and marveling at how very tiny everything is [FIG. 62]. This manner of presentation turns the handy prayer nut into a museum piece as it were – placed in a display case, with an explanatory label, and with a magnifying glass so that the viewer can delight in this small, virtuoso work of art to the full. A museum in a nutshell.

- 1 Julian of Norwich, *Revelations of Divine Love* (1393), ch. V: 'And in þis he shewed me a lytil thyng þe quantite of a hasyl nott. lyeng in þe pawme of my hand as it had semed. and it was as rownde as eny ball. I loked þer upon wt þe eye of my vnderstondyng. and I þought what may þis be. and it was answered generally thus. "It is all þat is made".'
- 2 For P(i)eter Spiering/Spierinck of Silfvercrona see Noldus 2004, pp. 102–04; Noldus 2006; Veldman 2016. Pieter Spiering was the Swedish resident in The Hague, and also acted as art agent for Queen Christina of Sweden. He had a *cunstcamer* (art cabinet) and a collection of prints by Dürer, Lucas van Leyden and others that was valued at 2,000 guilders.
- 3 Van Ysselsteyn 1936, vol. 2, p. 296: '[...] een houten appeltge, dat in twee stucken opgaet ende inwendich wederom met vyer deuren opengaat, seer kunstich gemaect, waervooren de vader zaliger in Engelant was geboden hondert pont steerlings ende comt daervoor alhyer thyen hondert gulden'. See also Van der Veen 2002. For comparable prayer nuts see cat. nos. 26–30, 32, 34.
- 4 'Description of an artful apple, carved from boxwood'; see Scholten 2012a, p. 128.
- 5 *Ibid.*, p. 136. A late seventeenth-century annotation also uses the term 'apple' for a prayer nut that is now in the Rijksmuseum, cat. no. 15: 'In een houten appel daer de passie of het lyden van Christus/ konstigh in is gesneeden en van onse voorouders/ van vader tot soon altyt is gerecommandeert dat dese/ appel altyt aen geslacht most blyven alsoo se seer langh/ in het geslacht van Bleyswijck is geweest en op eenigen/ honderden [jaren] altyt is geaestimeert geweest sy is tegenwoordigh berustende onder den heer Diederik van Bleys=/ wyck Burgemeester der Stadt Schiedam en/ hoogheemraedt van Schieland buyten op den appel/ staen gesneden dese twee wapenen' ('In a wooden apple in which Christ's Passion or suffering is ingeniously carved and has always been urged by our ancestors, from father to son, that this apple must always remain in family and has accordingly been in the Van Bleyswijck family for a very long time and has always been prized for several hundred [years]. It is presently with Diederik van Bleyswijck, burgomaster of the town of Schiedam and dike reeve of Schieland. These two coats of arms are carved on the outside of the apple'). The Hague, Supreme Council of Nobility, Van Slingelandt family archive, inv. no. 438 (unpaginated). With thanks to Gerrit Verhoeven of Delft, who alerted me to this report. Also Appendix, pp. 588–603.
- 6 Wetter 2011, pp. 38–51.
- 7 In addition to the fruit of the apple tree, the *Woordenboek der Nederlandsche Taal* gives the late medieval meanings of 'appel' as the spherical finial of tents, roofs and sword hilts. A southern Netherlandish source of 1531 speaks of turned wooden finials as apples: 'Betaelt eenen stoeldraeyer om xxvj ghedrayde appelen'. See *Woordenboek der Nederlandsche Taal*, s.v. 'appel', with reference to *La Flandre* 2, p. 213. Rientjes 1921, p. 139.
- 8 See the mention of 'Een teers [traan?] van pomum, ambre mit een lint om an den hals te dragen' ('An oval pomander to be worn on a ribbon around the neck') in the inventory of Bishop Philip of Burgundy; see Sterk 1980, p. 222 (fol. V), and 'Item twee welriekende paternosters' ('Two sweet-smelling paternosters') in the inventory of Jacques Nicquet of Amsterdam in 1642; Logan 1979, p. 259. Further Rimmel 1867, pp. 202, 203; Hansmann & Kriss-Rettenbeck 1966; Mohrmann 1992; Falkenburg 1999. See also the fourteenth-century 'pomme-reliquaire' in the Musée du Louvre, inv. no. OA 6712. With thanks to Caro Verbeek.
- 10 Cf. cat. nos. 22, 23, 29; also Falkenburg 1999, p. 43; Scholten 2011b, p. 451; and the essay by Dandridge & Ellis, pp. 514–577.
- 11 Falkenburg 1994a, *passim*. Kavalier 2012, p. 208, on the legends that the

- wood of Christ's Cross was made from the Tree of the Knowledge of Good and Evil. The apple tree is treated as a symbol of Christ in Song of Solomon 2:3; Van Os 1968.
- 12 On this see the chapter by Falkenburg, pp. 106–139.
- 13 See Falkenburg 1994a, pp. 42–44 and note 177 for the various editions. The earliest was published by Jan Seversz in Leiden in 1515.
- 14 'Inden yersten node ic u myn ghemynde bruyt te eeten van desen edelen boem die geladen staet met overvloedighen vruchten die den oghen seer genuechlijc zijn, ende si zijn van rooder verwen ende sy zijn genoemt Emmer appelen.' Cited from the Utrecht 1521 edition, p. 16. The translation is after Falkenburg 1994a, p. 44.
- 15 Wetter 2011, p. 8: 'Una nuez de madera que tiene a san Juan evangelista y Santiago dentro. Oltra nuez de madera con mucha imaginaria dentro' ('A wooden nut with a John the Evangelist and a James inside. Another wooden nut with many scenes inside').
- 16 Van Wezel 1999, pp. 59, 60, 73–75.
- 17 Tournai, Archives de la Cathédrale de Tournai, Registrum testamentum, vol. 2, fols. 192r–98v ('Testamentum defuncti Reverendissimi Domini Maximiliani Villani a Gandavo Episcopi Tornacenem', 19 April 1639), fol. 192v: '[...] aveqc la bourse de velour et la noix ou est represente nostre Saveur en croix et la vierge sa benitte mere et Saint Jean l'Evangeliste et de l'autre coste Sainte Marie Magdalaine e Ste Barbe'. With thanks to Christine Goettler for this source.
- 18 Romanelli 1992, pp. 109, 110.
- 19 Volk 2008, pp. 274, 277–80, and fig. 10. Diemer *et al.* 2008, vol. 1, nos. 615, 784, 789, 798. Also Sangl 2007, p. 49.
- 20 Zull 1995, p. 13.
- 21 Falkenburg 1994a, p. 86; Falkenburg 1994b; Scholten & Falkenburg 1999, p. 41. Cf. sale cat. Amsterdam (C.F. de Roos, G. de Vries & W.J.M. Engelberts), Jacques Moyet Collection, 13 April 1859, no. 582 ('une boule ou noix sculptée en bois de palmier'), identifiable as a Passion prayer nut in Riggisberg, Abegg-Stiftung, inv. no. 7.14.67.
- 22 For 'affordance' see Gibson 1986, pp. 127–43; Malafouris 2013, pp. 81, 82, 141–44, 209.
- 23 Pliny 1995, pp. 317, 318 (bk. XXXV, 77).
- 24 Kosegarten 1964, p. 302. See also Percec 1978, ch. XL (*Beaumont 4*), for the use of boxwood massage balls as a slimming aid.
- 25 Evelyn 1729, p. 156. See also the poem about the comb maker in the *Ständebuch* (1568) by Jost Amman and Hans Sachs: 'Kam machen hab gelehrt ich/ Buchssbäumen Kem/ gar Meisterlich' ('To make combs I've learned/ boxwood combs/ most masterly'). For a fifteenth or sixteenth-century French boxwood comb in the Munich *Kunstkammer* see Diemer *et al.* 2008, vol. 1, no. 833 (from Carcassone?).
- 26 Raff 1994, p. 50. Van Dijk 1948, p. 123: 'Die mast is dat cruce ons Heren, ende ghemaket van vierre-hande holten vergadert. Dat bloc daert instont, was cederboem; dat opstaende holt was palmen; dat holt over-dwers was cypressen; die tafel boven [...] was van olyven-boe' ('The post is the Cross of Our Lord, and made from four kinds of wood put together. The block in which it stood was cedar, the wood of the upright was palm, the crossbeam wood was cypress; the tablet above was from an olive tree'). The evergreen boxwood was also associated with Salvation and the Virgin Mary; see Romanelli 1992, p. 110 (note 5).
- 27 For an exception see the chapter by Dandridge & Ellis, pp. 514–577, and cat. no. 29.
- 28 Rimmele 2010, p. 239.
- 29 Leeuwenberg 1968.
- 30 Cat. nos. 16, 26, 30.
- 31 Marks 1977, p. 142; Romanelli 1992, pp. 58–73, esp. pp. 68–73; Williamson 2002, pp. 140–41.
- 32 See also the chapter by Dandridge & Ellis, pp. 514–577.
- 33 In addition to the stylistic similarities noted by Leeuwenberg there are many shared features, such as the consistent form and finish of the exteriors of the

- prayer nuts, the faces and attire of the figures, the layered rock formations, the delicately branched trees, the brick walls, the ribbed vaults, the speckled backgrounds and the standard lettering in a Gothic *textura* or humanist *antiqua*.
- 34 See the chapter by Dandridge & Ellis, pp. 514–577.
  - 35 Romanelli 1992, pp. 69–73.
  - 36 Huth 1967; Van den Bergh-Hoogterp 1990, vol. 1, pp. 71–74, 92, 93. Also Baxandall 1980, pp. 95–99.
  - 37 Romanelli 1992, p. 1, was still working on the premise that the period lasted from 1475 to 1530. Cf. Romanelli 1992, nos. 4 (1511), 7 (1503–35, see the chapter by Reesing, pp. 244–289), 8 (1502–28, see *ibid.*, p. 272), 14 (1523–39), 15 (1509–26), 22 (after 1519), 25 (before 1531) and 55 (1510–14); Scholten 2011b, p. 450 (c. 1517 and 1521), Margaret of Austria's letter M (before 1524, see the chapter by Reesing, pp. 244–289). Compare, too, the same concentration of prayer nuts in Germany, such as Lowden & Cherry 2008, no. 48 (1515) and in dated German portraits with prayer nuts or pomanders, such as Hans Brosamer's likeness of the Nuremberg tailor Hans Pirkl the Younger (1515) and Martin Schaffer's of Eitel Besserer zu Rohr (1516); see *cat.* Vienna 2011, nos. 184, 191 (with thanks to Matthias Ubl).
  - 38 Baxandall 1980, p. 97.
  - 39 Bork 2002; Kavalier 2012, pp. 41–45; Kik 2014. Van Tuinen & Meuwissen 2014, vol. 1, fols. 17v, 27v, 34v, 40v, 45r.
  - 40 Kavalier 2012, pp. 232–42. See also the traces of working on the inside of the foot of the monstrance in the Waddesdon Bequest (The British Museum).
  - 41 Scholten 2011a, p. 331; Jäger 2013, p. 107.
  - 42 See the chapter by Reesing, pp. 244–289, note 4; Leeuwenberg 1968, p. 622; Marks 1977; Romanelli 1992, nos. 14, 34, 55; Scholten 2011a and Scholten 2012a; Reesing 2016.
  - 43 See the chapter by Reesing, pp. 244–289.
  - 44 Jacobs 1998, pp. 209–37; Scholten 2012b, pp. 72–74.
  - 45 Ippel 2014, esp. p. 335, and figs. 1, 5, 14, 15.
  - 46 Burgers 2013, pp. 25–38. Cf. Moore *et al.* 2015, p. 47 (boxwood *chitarrino*, Milan?, c. 1420, inv. no. 64.101.1409). Unfortunately, little is known about the manufacture of musical instruments in the late medieval Netherlands.
  - 47 Exceptions are the carvers Jan Borman in Brussels and Jan van Steffeswert in Maastricht; see Te Poel 2000.
  - 48 Ploss 1958; Lehr 1963; Van Loon-van de Moosdijk 2004. The earliest known signed bell from the northern Netherlands is inscribed 'XRIAN ME FECIT Ao DNI MCCLXXXV MESE IUNII' ('Christianus made me in the year of Our Lord 1285, in the month of June').
  - 49 Juren 1974, pp. 27–30; Liebmann 1973; Claussen 1985, pp. 264, 265; Claussen 2013, pp. 78–80; Bredekamp 2013, pp. 91–94. A well-known example is the eleventh-century altar cross commissioned by St Bernard of Hildesheim, which is inscribed 'BERNVVRDVS PRESVL FECIT HOC'.
  - 50 Both forename and surname are also found in the patrician Van der Burch family of Delft around 1500; see Verhoeven 1992, pp. 58–61; *cat.* Brussels 2015, no. 23. Then there is the Delft burgomaster's son and theologian Adam Sasbout (1516–1553), a Franciscan in Leuven, for whom the Delft humanist Cornelus Musius (1500–1572) and Cornelis van der Burch wrote elegies; see Sasbout 1556, pp. 226ff.; Yhmoff Cabrera 1996, no. 42; Kok 1792, vol. 26, pp. 151–52. With thanks to Matthias Ubl. See further [www.collectie-delft.nl](http://www.collectie-delft.nl) under the headwords forename 'Adam' and patronymic 'Dircksz', which yields Adam Dircksz van Raadesteijn (married 1656), Adam Dircksz van der Zijl (recorded in the years 1639–87) and Adam Dircksz van Bleijswijk (1605–1656). The sheriff of Pijnacker, near Delft, was Adam Dircksz van Kerckhoven (c. 1536–1602), see also Nagtegaal 2008, nos. Xe, XIIb.
  - 51 See the chapter by Reesing pp. 244–289.

- 52 Verhoeven 1992, pp. 58–62; and the chapter by Reesing, pp. 244–289.
- 53 Cat. Brussels 2015, no. 23, and sale cat. New York (Christie's), 14 April 2016 (sale no. 11933), no. 113 (wrongly as Vermeyen). With thanks to Matthias Ubl.
- 54 Veulenturf 2000; Husemann 2000; Husemann 1999. See also the chapter by Falkenburg, pp. 106–139.
- 55 Cat. Cologne 1975. See also the chapter by Falkenburg, pp. 106–139.
- 56 See the chapter by Reesing, pp. 244–289.
- 57 There are only a few known cases of almost literal repetition of a whole or part of a scene in the entire oeuvre: two prayer nuts with Passion scenes in Copenhagen and Toronto, cat. nos. 14, 16. One scene of the Carrying of the Cross in the Walters Art Gallery, Baltimore, inv. no. 61.131 (Romanelli 1992, no. 29), has its counterparts in a relief in the Art Gallery of Ontario, Toronto, inv. no. AGO 29369. See also Romanelli 1992, p. 276, and the chapter by Dandridge & Ellis, pp. 514–577.
- 58 Romanelli 1992, nos. 7, 14, 25, 15, 55 (coats of arms), 4, 12, 20, 54 (empty shields), nos. 34, 35, 54, 55 (donors), no. 25 (donor's name); Scholten 2011b (donor with name).
- 59 Thornton 2015, pp. 178–85. Also Romanelli 1992, nos. 4, 6 (altarpiece, Detroit Institute of Arts), 22 (prayer nut, Rigsberg, Abegg-Stiftung, with a scene after a print by Lucas van Leyden), and sale cat. London (Sotheby's), 7 December 2010, *Old Master Sculpture & Works of Art*, no. 32.
- 60 Hurx 2012, p. 362.
- 61 Cat. nos. 13, 26.
- 62 Erasmus (ASD) 1969, vol. 1, pt. 2, pp. 118–19, 149.
- 63 Randall 1974, pp. 373, 374; Dücker & Priem 2009, no. 44. Faber 1651, pp. 532ff., calls the Swedish 'turner' Osualdo Nerlingero 'horrator artificiosissimus', who had a hollowed-out pea in Rome in 1651 into which 1,200 microscopic beads fitted. See also Connors 1990, p. 221.
- 64 See Randall 1974, and www.kunstdirekt.net/Symbole/symbole/fruechte.htm. With thanks to Matthias Ubl.
- 65 Bleyerveld 2000, pp. 42, 45, 63, 143, 169, 221. For a comparable scene see Smith 1994, fig. 236 (Hans Daucher, 1522).
- 66 Smith 1994, pp. 272–73, figs. 236, 237, 253. Ainsworth 2010, pp. 16, 17. See also the chapter by Scholten, pp. 428–474.
- 67 Cf. Marks & Williamson 2003, no. 225; Hollstein, vol. 4, p. 164, no. 226.
- 68 Cat. no. 52. Cf. Antwerp, Museum Mayer van den Bergh, inv. no. 213, inscribed 'Myn leven lanck'.
- 69 For example Braunschweig, Herzog Anton Ulrich-Museum (1583); Toronto, Art Gallery of Ontario, inv. nos. 69289, 69290, 107523 (1585, 1593, 1674); Munich, Bayerisches Nationalmuseum (1587); Amsterdam, Rijksmuseum, inv. no. BK-NM-8960 (1590); Schloss Steyr (1592, 1611); Paris, Musée des Arts Décoratifs (1593); Graz, Landesmuseum (1595); Ecouen, Musée national de la Renaissance, inv. no. E.Cl.21288 (1595); Cambridge (Mass.), Busch-Reisinger Museum, inv. no. 1963.5479 (1626); Madrid, Museum Lázaro Galdiano, inv. nos. 306 (1626), 312–13 (sixteenth century). See also Kuhn 1965, no. 56; Diemer *et al.* 2008, vol. 1, no. 483 (Munich, Kunstkammer); Schütte 1997, p. 121, no. 105; Marquardt 1997, pp. 74–78; Amme 2002, nos. 344–46.
- 70 Thornton 2015, pp. 186–95.
- 71 Diemer *et al.* 2004, no. 370; Diemer *et al.* 2008, vol. 1, no. 373.
- 72 Diemer *et al.* 2008, vol. 2, nos. 2133, 2135, 2136.
- 73 Bauer & Haupt 1976, p. 113, no. 2184: '[...] uff hohem knorretem füeßlin, anzusehen als ein monstrantz' ('on a small, tall, lobed foot, resembling a monstrosity').
- 74 Kavalier 2012, pp. 201, 203, fig. 205, also figs. 164–67, 176, 189; Falkenburg 2011, figs. 13, 14, and pp. 81ff.
- 75 See also the chapter by Reesing, pp. 244–289.
- 76 Mann 1981, no. S 279; bought in 1871 as 'tabernacle du XVe siècle en buis sculpté'.
- 77 Cat. Paris 2009, p. 171, fig. 60;

- Nieuwdorp s.a., p. 14.
- 78 De Ruelle *et al.* 1989; Kavalier 2010; Kavalier 2012, fig. 268.
- 79 For the term 'micro-architecture' see Bucher 1976; Kratzke & Albrecht 2008.
- 80 Helmstutler Di Dio & Coppel 2013, p. 38.
- 81 See Checa Cremados 2010, vol. 3, p. 2894 (p. 231): 'Yten una peça de maderá, en forma de custodia, con muchas ystorias de talla y escultura e ymajneria de bultos. Esta hecha en triangulo e dentro della muchas ystorias del Testamento, viejo e nuevo, e creaçion de Adan y ençima, por rremate, la verga de Jese y, en estremo, un pelicano, con su caja negra.' With thanks to Ingmar Reesing.
- 82 See also the chapter by Scholten, pp. 428–474.
- 83 See the chapter by Dandridge & Ellis, pp. 514–577.
- 84 With thanks to Dr Dariusz Nowacki, Cracow.
- 85 Cat. nos. 60–63; cat. Nuremberg 2000, no. 110; Lowden & Cherry 2008, no. 48; Suda 2016.
- 86 Suda 2016.
- 87 Diemer *et al.* 2008, vol. 1, nos. 370 ('[...] ein subtil außgeschnittne Kugl von buxbaum'), 372 ('ein subtil außgeschnitten kugl'), 373 ('in Buchsbaume holz außgeschnitten Monstränzl [...] inwendig auch von subtilen figuren außgeschnitten').
- 88 For example Diemer *et al.* 2008, vol. 1, nos. 615 ('2 figürl von holtz subtil außgeschnitten'), 787 ('[...] ein subtil von bain gedräxlter Kindtsgehewagen, unden mit 4 Räd, Mehr 4 claine subtile büchßlin, darinnen subtil Spil- und Kinderwerckh clain geschnizelt. Mehr ein clains subtils von bain gedräxelt püchßl, darinn ligt ein clainer Kherßkern, auch subtil außgeschnitten'), 792 ('subtil gedrechselte Schachfiguren'), 796, 798 ('[...] ein haßelnuß, darinn subtil schnizlwerckh'). Volk 2008, pp. 274, 277, 278, on micro-carving in Oberammergau ('subtile Arbeit; aus holtz subtil gemacht worden; ein gar subtiles Drechselwerk').
- 89 See Appendix, p. 599: '[...] en dit croontjen is soo subtijl gemaect'.
- 90 In classical rhetoric the Latin word *subtilitas* is one of the words used to describe unadorned, refined style effects, and the Old French derivative, *soutil*, makes a message more pleasing and appealing and can even excite amazement and joy in the listener or reader; see Huot 1993, p. 206; Carruthers 2014, pp. 45, 189.
- 91 Carruthers 2014, p. 188 ('subte(x)la'). Also Baxandall 1980, pp. 145, 232, note 3.
- 92 *Woordenboek der Nederlandsche Taal*, s.v. 'subtijl'. For the latter meaning see, for example, 'Dat [dattet] die subtijlste lieden sijn in allen consten, [...] die in die werelt moghen sijn' (Holland, 1401–50), or 'In dien leerde ic werken menigherande consten om te maken wonderlike dinglen ende subtijl' (Holland/Flanders, 1401–50). Also Carruthers 2014, p. 188. Vitruvius associated it with the slenderness and delicacy of architecture, while in music it meant the rarefied and refined voices of women and children.
- 93 Huth 1967, p. 121: 'Solchs soll auch kunstlich und wol gemacht werden, aber doch nit als subtilig, als das unnter, wann er hoher sten würdt und von den menschen nit als wol gesehen mag werden.' Also Kavalier 2012, p. 8.
- 94 Carruthers 2014, p. 189.
- 95 Cf. Vasari's life of the miniature painter Giulio Clovio (1498–1578), 'the Michelangelo of small works', in Vasari 1963, vol. 4, p. 246: 'a work so stupendous that it seemed impossible that eye and hand have made it'.
- 96 Scholten 2011c, p. 13: "'t Schynt verders onbegrypelyk te zyn, door welke werktuigen den Maker zig heeft bediend, en hoe hy die heeft weeten te bestieren, en gebruiken, in 't uithaalen en bewerken van de afgelegenste en diepste Kamers en Vertrekken.'
- 97 Penniman 1820, p. 162. My thanks to Angela Glover for bringing this text to my attention.
- 98 Levy 2002. For technology in the *Kunstammer* see Bredekamp 2000, pp. 19–48; Bredekamp 2007, pp. 106–14.
- 99 Sennett 2008, pp. 167, 168. One fascinating contemporary example was provided by the British Graham Short, who etched the text 'Nothing is impossible' on the narrow edge of a

- Wilkinson Sword razorblade; see *The Daily Telegraph*, 10 February 2011.
- 100 Sennett 2008, p. 174; Carpenter 1966; Esterley 2012, pp. 206 ('the carving thinks with your hands'), 220 ('There, making and seeing are entwined together. Mind and body and object dissolve into one another').
- 101 Esterley 2012, pp. 45, 214 ('seeing as making').
- 102 Scholten 2011a, pp. 338–39; Mesenzeva 1978, fig. 2.
- 103 Woodall 2003, pp. 7–9, and notes 2, 8–10; Mark 1980.
- 104 Zumthor 1978, p. 208; Beck 1984.
- 105 Bucher 1976.
- 106 Van Mander points out that a painter's 'virtus' is partly linked to his 'poetic, inventive spirit'; see Weissert 2003, pp. 39–42.
- 107 Roller 2011, no. 31, p. 318.
- 108 Scholten 2011a.
- 109 *Ibid.*, p. 336. If this prayer nut can be regarded as a miniature terrestrial globe, then one cannot rule out an association of the nude woman with Lady World; see Stammler 1959.
- 110 Scholten 2011a, p. 336; Janson 1952, pp. 123, 169, 181–86, 261–68; Kirschbaum 1968, cols. 76–79; Schmitt *et al.* 1973, vol. 6, cols. 306–09.
- 111 On the circle and sphere as perfect figures and as a cosmological image see, for example, Bezemer Sellers 2001, pp. 245–50; Kavalier 2012, pp. 97, 98; Jäger 2010, p. 203 (a rosary with beads as miniature terrestrial globes); Lentz 2003, pp. 69–81. See also the depiction of *The Creation of the World on the outer wings of Jheronimus Bosch's Garden of Earthly Delights* (c. 1505), and of the world as a tumbling glass sphere in a tapestry after his *Haywain*; Falkenburg 2011, pp. 15, 88–95, figs. 4, 51, 79–86.
- 112 Julian of Norwich, *Revelations of Divine Love* (1393), ch. V: 'And in this he showed me a little thing, the quantity of a hazelnut, lying in the palm of my hand, it seemed, and it was as round as any ball. I looked thereupon with the eye of my understanding, and I thought, "What may this be?" And it was answered generally thus: "It is all that is made".'
- 113 Among others Daston & Park 1998; Walz 2000. For the microcosm and the four elements in medieval cosmology see Böhme 1996 and Böhme 2000.
- 114 Bredekamp 2007, pp. 121–24 (the *Kunstkammer* as playground).
- 115 Daston 1994; Wood 1995; Daston & Krüger 2002. Quiccheberg's treatise on collecting and the *Kunst- und Wunderkammer* mentions categories for work by 'fine sculptors', for 'Ingenious objects worthy of admiration, [...] primarily tiny', and 'Tiny ornaments made by goldsmiths [...]'; Quiccheberg 1565, Second Class, inscriptions 3, 4, 10.
- 116 Cf. Guiffrey 1894–96, vol. 1, pp. 74, 75, 152, 153 (no. 208: 'Item, l'euangile saint Jehan, escripte de menue letter, en parchemin, de la grandeur d'un blanc'; no. 548: 'Item, deux petites pièces, du gros d'une noix [*sic*], de mine'; no. 564: 'Item, deux pommes de voirre, en l'une desquelles a audedens un crucifix, et en l'autre un home et une femme jouans aux eschaz'). Schlosser 1978, pp. 38–40; Daston & Park 1998, pp. 68–108; Pliny 2004, p. 158 (bk. VII, 85).
- 117 Read 1902; Molinier 1902; Prevost-Marcilhacy 1995; Theuerkauff 2003; Thornton 2001; Thornton 2015, pp. 45–52.
- 118 Eichberger 2002, pp. 110–11, 372–88; Baker 1998.
- 119 Marks 1977, p. 140; cat. Mechelen 2005, p. 180, no. 55; Checa Cremades 2010, vol. 3, p. 2496. See also the chapter by Reesing, note 7, for the full inscription.
- 120 Schlosser 1978, pp. 143–44, and fig. 96.
- 121 See the chapters by Reesing, and Suda & Boehm, pp. 244–289, and 340–392.
- 122 Laube 2011. For example, there were numerous paternosters in materials of every kind in the Munich *Kunstkammer*; see Diemer *et al.* 2008, vol. 1, nos. 434, 534, 589 (apricot stones with the first twelve Roman emperors), 769 (carved peach stones), 786 (miniature silk rosary), 806 (amber with trapped insects), 823 (irregularly shaped wooden beads), 824, 825, 1388 (coral), 1410 (water chestnuts).



