Dutch Painting Art Cart

The Minneapolis Institute of Arts
Department of Museum Guide Programs
Education Division
2400 Third Avenue South
Minneapolis, Minnesota 55404

Art Cart Inventory

Art Cart Interpreters:

The docents/guides for each Art Cart shift should inventory the contents of the cart before **and** after the shift. If this is not done and objects are missing or damaged, the lead guide may be held responsible. (The lead guide is the first guide listed on the tour confirmation form.)

If an object is missing or damaged, make a notation on the inventory and report it to the Tour Office.

If an object is suddenly missing during your shift, notify security immediately by alerting the guard in the gallery or by calling x3225.

INVENTORY SHEET: ART CART – DUTCH PAINTING

Date: **Guides/Docents:**

Objects **Comments**

	In	Beginning of Shift	In	End of Shift
Blue and white lobed dish				
Fallen ruff				
Flax				
Flax seed				
Metsu painting reproduction				
Millstone ruff				
Prop showing canvas, prep and paint layers				
Sextant				
Spices (8)				

Check to see if you are low on any supplies (paper, pencils, etc.). Let the Tour Office know if you need anything replenished.

Please share! Record visitor questions that “stumped” you and comments or observations you would like to share with fellow guides and staff. If you know the answer to someone's question, please record the answer! Staff will also periodically review questions and assist with finding answers.

INTRODUCTION

WHAT IS THE THEME OF THE DUTCH PAINTING ART CART?

The focus of the Dutch Painting Art Cart is the impact of international trade, travel and commerce on the art and culture of the 17th century in Europe, especially in the Netherlands.

HOW DO THE OBJECTS ON THE ART CART RELATE TO THE THEME?

After gaining independence from the Spanish throne in 1579, the Dutch Republic experienced a period of strong nationalism, civic pride and economic productivity. Their main source of income was the import and export of goods and materials. During the 17th and 18th centuries, ships of European trading companies from Portugal, Spain, France, England and the Dutch Republic sailed home bringing vast cargoes of spices, tea, colorful fabrics, porcelain and other "exotic" items from the Far East. These new products changed everyday life. For example, by the mid-17th century, almost every European household could afford black pepper, once cherished only by the elite.

Other products that were introduced to Europe were rare woods, such as ebony, blue and white porcelain, Indian textiles, Japanese robes and Chinese tea, which soon became a popular drink. Contacts with Asia also broadened the knowledge of navigation and the constellations of the Southern Hemisphere.

The Dutch Painting Art Cart features some of the "exotic" trade goods of the 17th century, including a variety of spices. Also included are objects such as a lobed dish that imitates blue and white porcelain from China, and a reproduction of the Gabriel Metsu painting in the Institute's collection, both of which illustrate the influence Eastern cultures had on Dutch taste.

HOW DID TRADE AND COMMERCE IMPACT THE ARTS?

In the arts and sciences, trade and exploration helped foster a range of new studies in areas such as exotic flora and fauna. Printmakers were busy adding new territories to the world map and artists became fascinated by the images of the "new" natural environment abroad. Artists also celebrated their own national identity and environment at home.

Known for their exacting detail and stunning use of illusion, 17th-century Dutch artists took great pride in depicting the Dutch landscape, architecture and people. Also popular were images that referenced the recent struggle for independence from the Spanish.

HOW DID TRADE AND COMMERCE IMPACT THE ARTS?, CONT.

With the growing East Indies trade network and prospering industry, seascapes also became common and highly sought-after. Marine painters depicted the sea as both benevolent and malevolent, and collectors often juxtaposed one type of depiction with another as a reminder of the power of nature and God over humankind.

Still lifes, portraits, and genre paintings also displayed Dutch pride in their global trade network. These types of paintings often included "exotic" items such as Turkish carpets, Indian textiles, and blue and white porcelain intermixed with typical Dutch interiors and objects.

HOW AND WHY DID DUTCH COLONIAL TRADE DEVELOP?

From the earliest times, the Dutch economy has been based on seafaring. The Dutch were notable for their efficiency, low prices and the large size of their fleet. By the 15th century, they had established one of the largest shipping industries in Europe. The foundation of its successful maritime trade lay in the country's favorable geographical position, halfway between Scandinavia and Iberia, at the crossroads of sea routes and waterways—including a network of inland canals—connecting the Atlantic with Central Europe.

The great breakthrough for European exploration of the territories in Asia came with the discovery of a safe passageway around the Cape of Good Hope and across the Indian Ocean. The Portuguese explorer Vasco de Gama was the first to successfully round the Cape on his voyage of 1498. Within the next century, the Portuguese established key stations along the entire route on both coasts of Africa as well as in India and China. A century later, other European trading nations—mainly the Dutch and the English—entered the scene and began to colonize the Far East. Competition became fierce and each imperial power used navigation acts, trade regulations, tariff policies and a variety of other devices to keep trade between the mother country and its overseas trading posts within the empire.

WHAT IS THE DUTCH EAST INDIA COMPANY?

In March of 1602, the **V**erenigde **O**ost-Indische **C**ompagnie (VOC), or Dutch East India Company, was founded. It created a monopoly on all Dutch trade and shipping to Asia. The Dutch East India Company was a successful enterprise right from the beginning. It generated immense wealth and secured the dominant naval power of the Dutch Republic in the Far East for almost two centuries, until its decline and eventual bankruptcy in 1799.

WHAT IS THE DUTCH EAST INDIA COMPANY?, CONT.

The Company was granted special privileges such as entering into treaties with Asian monarchies, building trading posts, waging war and recruiting soldiers. It was a private business, however, whose investors consisted of people from all levels of society. At the head of the organization was the Board of Directors, commonly referred to as the Gentlemen Seventeen. They were the delegated directors of the six Chambers (main trading ports): Amsterdam, Zeeland, Hoorn, Enkhuizen, Delft and Rotterdam. The Gentlemen Seventeen decided on the Company's policy and met only two or three times a year. Each Chamber built its own ships and had its own shipyards. Amsterdam was the largest Chamber. At the height of the Company's existence, an average of three ships were launched each year and over a thousand workers were employed. The cost to build a ship was approximately 100,000 guilders, but the value of the cargo on its way back was many times larger.

WHAT KIND OF SHIPS SAILED TO THE EAST INDIES?

There were different types of ships, each one designed for a specific task. The most expensive ones were called "homeward-bounders". These ships were designed for passengers as well as cargo and they were meant for return voyages. It took eight months from Amsterdam to Batavia (present-day Jakarta), a distance of 15,000 miles. The voyage went southward from the North Sea through the English Channel, through the Atlantic, following the coasts of Portugal and West Africa. At the equator, the ships steered off to Brazil in order to safely arrive at the Cape of Good Hope, where the Dutch East India Company had established a supply station. After a break of four weeks, the ships continued their journey, crossing the Indian Ocean in the northeastern direction to the city of Batavia. Batavia was founded in 1619 as the administrative center for the Company for all its activities in the East. Its location was at the crossroads of a widespread trading network that reached as far as Japan. Here, goods from all corners of the colonial empire were reshipped to Europe.

WHAT WERE THE SAILING CONDITIONS ON 17TH-CENTURY SHIPS?

The captain was in charge of the crew, but he was also a subordinate of the East Indies officer, usually someone who had no experience at sea. The East Indies officer was a merchant, whose main responsibility was to guarantee a profitable voyage. His duty was to protect the cargo first, then the crew. The crew consisted of sailors, gunners, servants and some civilians. The larger ships typically carried 350 passengers. These ships had a square, broad stern.

WHAT WERE THE SAILING CONDITIONS ON 17TH-CENTURY SHIPS?, CONT.

The life expectancy of an "Indies sailor" who had just arrived in the East was about three years. The risks were great: illnesses and death due to lack of hygiene, shortage of water and food, and tropical living conditions. At the end of the voyage the fresh food supply was gone, water contained worms and the whole ship smelled of urine and unwashed bodies. The pay was poor. Those who were willing to sign on often had nothing to lose. Of the approximately one million people who joined the Dutch East India Company throughout its existence, less than one-third returned to the Netherlands.

WHAT IS THE IMAGE ON THE FRONT OF THE DUTCH PAINTING ART CART?

The image on the front of the Dutch Painting Art Cart is Ludolph Backhuysen's *Fishing Vessels Offshore in a Heavy Sea* from 1684. Backhuysen is known for his dramatic seascapes which most often depict ships battling mighty tempests at sea.

As the title suggests, the ships in this painting are fishing vessels. Backhuysen depicted all types of ships and often intentionally sailed into storms to observe the sea's power and the ships' reaction to it. However, Backhuysen's seascapes do not generally depict specific storms or events. Instead, his images convey the awesome power of nature over humankind. The three ships shown are all experiencing different levels of distress, and we are left to wonder if they will return to port safely or not.

WHERE IS THE DUTCH PAINTING ART CART STORED, AND HOW DO I ACCESS IT?

The Dutch Painting Art Cart is stored in the Museum Guide Programs costume room/Art Cart room on the third floor. It is located across the hall from the Tudor Room. To access the storage area, pick up a key from the Tour Office. The keys are kept on a hook in the top drawer of the low filing cabinet just inside the tour schedulers' office door.

WHERE SHOULD THE DUTCH PAINTING ART CART BE SET UP?

The Art Cart should be set up to the east of the bench in Gallery 313, facing the Gabriel Metsu painting.

BLUE AND WHITE LOBED DISH

WHAT IS IT?

This dish is a 21st-century reproduction of the Institute's blue and white lobed dish (23.8.103, Gallery 313), which was made in the well-known pottery center of Delft (Dutch Republic) in about 1700. It is a type of pottery called Delftware.

WHAT IS DELFTWARE?

Delftware is a kind of "tin-glazed" earthenware pottery. Earthenware, in general, refers to coarse ceramic ware that is fired at relatively low temperatures. Delftware is heavy brown earthenware coated with a white opaque glaze made from tin and lead oxides. This milky white glaze provides an ideal background for colors.

Delftware has become the generic term for tin-glazed pottery, but in France it is known as faience, and in Italy, as majolica. Delftware was originally designed to imitate Ming Dynasty porcelains being exported to the Dutch Republic from China.

WHAT ARE THE ORIGINS OF POTTERY IN THE DUTCH REPUBLIC?

When traders from the Dutch East India Company brought back porcelain from China, it quickly became highly valued for its "exotic" beauty, durability and utilitarian qualities. By the year 1645, porcelain imports into the Netherlands had increased to 250,000 pieces each year.

Porcelain was an unknown material in the Netherlands prior to the 17th century. Dutch potters, however, attempted to imitate the Chinese products as well as they could with local clay. They succeeded in doing so in a relatively short period of time. (The formula for true porcelain, however, was not achieved in Europe until the 18th century.) Soon after, a number of factories were founded. The city of Delft became one of the primary centers for pottery production in Holland. Delft was also one of the home ports of the Dutch East India Company. Delft, originally a town known for brewing beer, had many factories. However, as that industry eventually declined, around 1600 some of the factories were converted to make pottery. The imported Chinese porcelain captured the Delft potters' imaginations and they began manufacturing their imitations with designs based on Chinese patterns.

WHAT ARE THE ORIGINS OF POTTERY IN THE DUTCH REPUBLIC?, CONT.

The pottery produced in Delft acquired an international reputation by the second half of the 17th century. Its products would later stimulate the founding of other ceramics factories in neighboring countries, including England, in the early 18th century. Although they produce pottery in many colors, Delft is world-renowned today as the city of Delft blue and white pottery.

WHY WAS IT POPULAR?

The popularity of the Chinese blue and white porcelain was widespread among the more wealthy households in the Dutch Republic and elsewhere. They were considered luxury items intended for both decoration and everyday use. When export of porcelain ceased in the second quarter of the 17th century (1645-50), due to civil war in China, the Dutch potters and others in England eagerly rushed to fill the niche in the market. It was at this point that Delftware became accessible to a greater range of people of various income levels. Manufacturers also began introducing their own design ideas that reflected the local environment instead of only using designs taken directly from Chinese examples. The Dutch were not alone in their fascination with the exoticism of the Far East. Other countries also produced goods that displayed Asian motifs. Many objects in the Institute's galleries reflect this widespread fascination.

HOW IS IT MADE?

The production process of Delft earthenware starts with clay naturally found in the Delft region. The raw clay is carefully mixed with water and then either poured or pressed into a plaster mold, depending on its consistency. To make a plate such as this, a slab of clay is placed into the bottom part of a mold; a second mold is placed on top of the clay slab. Pressure is applied to force the clay into the contours of the mold. The cast objects are then completely dried and fired at a low temperature (about 1050° C). The unglazed body, called "biscuit ware," is ready to be decorated.

Next, the biscuit ware is entirely covered with a milky white glaze. Because earthenware is coarse and fired at relatively low temperatures, it does not vitrify (become glass-like) in the kiln, but remains porous (much like a red-clay flowerpot). Glaze is required for earthenware to hold water without "sweating." The glaze is composed of fine sand (silica), calcined lead and the addition of tin oxides, or ash, which give it the white opaque quality that resembles Chinese porcelain. The powdery white tin glaze provides a perfect ground on which to paint colored designs. To apply the decoration, artisans first paint the outlines of a design, and then carefully add the details.

HOW IS IT MADE?, CONT.

Delft blue is made with a centuries-old recipe, which mainly consists of cobalt oxide, which had to be imported over the Silk Road from countries of the Middle East at considerable cost during the 17th century. The cobalt paint is water-based, enabling the painters to create various shades of blue by adding more or less water. When the decoration has dried, the entire object is dipped into a protective over-glaze and fired a second time. A chemical reaction during the firing turns the black cobalt paint to blue. The over-glaze is also chemically changed in the firing process, changing it from white to semi-transparent in order to expose the decoration.

WHO MADE THE REPRODUCTION ON THE ART CART?

This reproduction was made at the Pieter Verhoeve pottery workshop in Delft, Holland. The artist used photographs of the Institute's own blue and white lobed dish (28.8.103) to create this copy. Notice the workshop's trademark on the bottom of the dish, certifying it as authentic Delftware made in accordance with the techniques employed by 17th-century Delft workshops.

WHAT KINDS OF OBJECTS WERE MADE?

During the height of production, 1640 to 1740, there were 32 factories in Delft. The factories produced both functional and decorative objects. Delft potters produced tin-glazed tiles and panels that were especially suited for kitchens and fireplaces. Not only did they protect Dutch homes against dampness and dirt, they also served as beautiful decoration pieces. In some homes, "memory game tiles" were installed along the floor. The tiles had pictures of ships, flowers, and animals on them. The children would then crawl across the floor to find matching images. When they found two alike, their parents would praise them for their wonderful memory skills and sometimes reward them with a small treat if they found all the matching tiles.

QUESTIONS AND ACTIVITIES

1. Pick up this dish and examine it. What do you see? What about this dish looks "Asian" to you? What do you see that makes you say that?

2. "Exotic" imports had appeal in the 17th century, and still have appeal today. What kinds of products do you buy that come from someplace else (international cuisine, clothing, furniture, etc.)? What other imported items do you find on the Art Cart?

QUESTIONS AND ACTIVITIES, CONT.

3. Gallery 310 has many objects that have been influenced by Asian designs and motifs. See what objects look like they might have an Asian influence. Remember, most people have not traveled at this time so imagine what "Asian" might look like to someone who never experienced that place. What did you find and why did it seem "Asian" to you?

4. Compare the reproduction dish on the Art Cart with the original on view in Gallery 313. How are they similar? Different? What do you see that makes you say that? The artist who made the reproduction was working from photographs, and probably has never seen the original in person. How do you think this might have affected his perception of the dish's overall appearance, size, etc.?

COLLECTION CONNECTIONS

<u>Delftware in paintings</u>

1. Pieter Claesz, *Still Life*, 1643 (Gallery 313)

<u>English Delftware</u>

1. England, Delftware case, various (Gallery 310)
2. Chinese blue and white export ceramics (on view periodically)
3. China, Blue and white ceramics case (Gallery 210)

<u>Other uses for cobalt blue glaze</u>

1. China, T'ang dynasty, *Tomb Retinue* (Gallery 215)

<u>Other objects showing Asian influence</u>

1. France, *The Chinese Fair*, tapestry, 1742 (Gallery 310)
2. John S. Bradstreet, *Duluth Room*, 1906 (Gallery 320)
3. France, Sèvres, *Pair of covered vases*, 1780 (Gallery 310)

LINEN COLLARS

WHAT ARE THEY?

These are two garment collars or "ruffs" from the 17th century that would have been worn around a person's neck. The pleated ruff (pictured on the left) is called a *millstone ruff*, referring to its resemblance to the circular stone that was used to grind grain in the windmills that pepper the Dutch countryside. It is made of long narrow strips of linen that are carefully folded, stitched and starched to give the ruff depth and texture. The other collar (on the right) that lies flat and is edged in lace is also made of a pleated strip of starched linen. This second ruff is called a *fallen collar* because it falls gently to the chest when worn around the neck.

These two collars are based on those worn by Lucas van Voorst (fallen collar) and his wife Catharina (millstone ruff) in their wedding portraits, painted by Paulus Moreelse in 1628 (on view in Gallery 310). Lucas was a well-known jeweler and goldsmith in Utrecht. In real life, the van Voorsts would have been considered prominent members of the artisan class, but Moreelse depicts them here with higher aristocratic standing, as indicated by their fine dress and the Turkish carpet in Lucas' portrait.

HOW WERE THEY USED/WORN?

The collars were tied tightly behind the neck, as in the case of the pleated millstone ruff, or fastened in the front, as in the case of the lace-trimmed fallen collar. They would have lain on the top of a person's shirt or cloak, as one of the last pieces to be added to a dress ensemble.

The ruff was worn all over Europe during the 16th century and continued in the Dutch Republic until the mid-17th century. In the 16th century, the pleated ruff emerged for women as the gathered end of a chemise that peaked out from under the outer garment. By the 17th century, the woman's pleated ruff had developed to an altogether independent garment (the millstone ruff), such as the example on the Art Cart. Men also wore the millstone ruff in the 16th century, but it soon gave way to the fashion for the fallen collar with lace trim, most common in the 17th century. The preferred fashion for 17th-century Dutch women continued to be the thicker, starched millstone ruff.

HOW WERE THEY USED/WORN?, CONT.

At one point in the 17th century, ruffs grew to such enormous proportions in width that they interfered with normal activities like eating. The handles of spoons were lengthened during that time to allow the person wearing an enormous ruff to eat!

WHO WORE THESE GARMENTS?

The Dutch Republic in the 17th century was newly independent and full of dramatic economic and social change. Extensive exploration and colonization in the East and West Indies brought many Dutch citizens great prosperity through trade. As trade became increasingly widespread throughout the Republic, merchants who were importing these goods grew wealthier and were able to distinguish themselves conspicuously by their clothing, homes and belongings. Wealthy merchants, magistrates or government officials wore ruffs like these. As a class, they were powerful, wealthy and pious.

A royal court in the Dutch Republic during the 17th century did not exist, so the merchants and government officials were part of the highest social classes. The ordinary citizen, however, could not afford to wear such sumptuous clothing and wore more ordinary garments made of linen and wool with little or no decoration.

WHAT WAS 17TH-CENTURY DUTCH FASHION LIKE?

One's wealth and status in the community dictated what fashion standards and requirements that person could follow. Peasants wore simple linen attire that was often in natural tones or brown in color. Those who could afford it wore only velvets, silks, lace and embroidery.

The sober, dark Dutch style of dress for the upper classes takes some of its influence from Spanish fashion, which also favored the color black. This influence is ironic since the Dutch fought bitterly to free themselves of Spain's repressive rule in the early part of the 17th century. This style of dress was, however, well-suited to the Dutch brand of Protestantism that favored simplicity and strict morality focused on the teachings of *The Bible*. Conservative in nature and not excessively flamboyant, the black costume became a symbol of power and respectability for both men and women. Wearing predominantly black clothing allowed the magistrates and wealthy merchants to be easily identified as such in the Dutch Republic.

Although it connoted modesty, black was an expensive color to choose to wear. Dyes that could create a rich black color were difficult and expensive to achieve. Seventeenth-century Dutch citizens would have been aware of this expense, and it was another way for the wealthy to distinguish themselves from the peasant classes. Black dominated the costume of the period, although traces of colors like red became popular later in the century, as the brighter colors and richer textures of the French court became more desirable.

WHAT WAS 17TH-CENTURY DUTCH FASHION LIKE?, CONT.

The Dutch version of the white millstone ruff changed in shape and style, becoming more decorative and revealing more of a woman's chest late in the century. White collars remained in vogue for both men and women until around 1675. The ruff was an extravagant clothing item intended to show the general population that the wearer could not engage in any strenuous activity because of the restrictive nature of the garment.

Cleaning, folding and starching the collars was a task demanding great skill. Each time the collar was washed, all the intricate pleats had to be taken apart and flattened out into a piece of fabric that grew to several feet in length. The bleaching of the linen involved a combination of buttermilk and sunlight and took place in fields on the outskirts of towns and cities. In Amsterdam, horse-drawn barges left only two times per year to go to the bleaching fields. If a person wanted to wear collars, he or she had to own many of them to accommodate the infrequent washing and bleaching process. To starch the collar, the laundress would use wheatmeal to make the really large collars stand out stiffly. Servants had to iron and pleat long strips of linen carefully without scorching it under the heat of the iron directly from the open fire. The Dutch were well-known for their proficiency at pressing ruffs. Queen Elizabeth of England employed a Flemish maid to press her collars. (Flanders was a part of the Netherlands region under 17th-century Spanish rule.)

HOW DID DUTCH PORTRAITURE REFLECT 17TH-CENTURY FASHION AND SOCIAL STATUS?

Scenes from the everyday lives of the Dutch and surrounding landscapes became prevalent in paintings, as the Republic began to think about representing its own cultural identity. This shift was different and dramatic when compared to other 17th-century European cultures that depicted royalty or biblical stories and scenes. Dutch paintings, in general, sought careful attention to detail and demanded a faithful recording of what artists and patrons saw around them.

Affluent middle class patrons who wanted to show off their social and economic status commissioned portraits. Their homes and clothing became the vehicles for showing off their wealth. Portraits often displayed a patron surrounded by his or her wealth from trade items like carpets, dishes, jewels or clothing and other objects that could reflect one's status. These portraits adorned the homes of the wealthy middle class and reflected their lifestyle, values and material prosperity.

QUESTIONS AND ACTIVITIES

1. Try on both ruffs. Look at yourself in the mirror provided on the Art Cart. Which one would you rather wear? Why? Which one is more comfortable or uncomfortable? Why?

2. What would/does it feels like to wear this? What kinds of clothing are worn today by men or women that are difficult to wear or uncomfortable? (e.g. high heels, girdle, pantyhose, etc.) Why might people wear these items, even if they are uncomfortable?

3. Imagine what it would be like to try to eat wearing this! What might you do to make eating easier?

4. What similarities or differences do you see among these collars and those shown in paintings in these galleries? Look at some of the Dutch portraits on view. What types of props, clothing or other indications of stature have the artists included?

5. This garment communicates a certain status or identity about the person that wears it. If you were to choose an item of clothing that would indicate your status or identity what would it be? Why?

6. What kinds of clothing do you associate with different jobs, clubs or organizations? (e.g. firemen, police, Boy and Girl Scouts, military, etc.) What about those clothing items helps you identify the person?

7. Look at the *Portrait of a Burgomaster* in Gallery 313. How would you describe his clothing? What do you see that makes you say that? Touch the samples of fabrics like those worn by the Burgomaster. How do they feel? Would you like to dress like him? Why or why not?

COLLECTION CONNECTIONS

<u>17th-century Dutch portraits illustrating fashion</u>

1. Paulus Moreelse, *Wedding Portraits of Lucas and Catharina van Voorst*, 1628 (Gallery 310)
2. Albert Cuyp, *Portrait of a Lady*, 1649 (Gallery 310)
3. Bartolomeus van der Helst, *Portrait of a Burgomaster, Jacobus Trip*, about 1660 (Gallery 313)
4. Jacob van Loo, *Portrait of a Young Girl*, about 1655 (Gallery 310)
5. Unknown Dutch artist, *Lady at her Toilet*, no date (Gallery 310)

COLLECTION CONNECTIONS, CONT.

Other portraits showing European fashion

1. Nicolas de Largillière, *Portrait of Catherine Coustard, Marquise of Castelnau, with her son, Léonor,* French, 1699 (Gallery 312)
2. Ridolfo Ghirlandaio, *Portrait of Silvestro Aldobrandini,* Italian, 16th century (Gallery 342)
3. Lucas Cranach the Elder, *Portraits of Moritz and Anna Buchner,* German, 1518 (Gallery 343)

Adornment and dress in other cultures

1. Great Plains, Lakota, *Dress*, 20th century (Gallery 367)
2. Guatemala, Maya, *Huipils*, various (Gallery 367)
3. Democratic Republic of Congo, Kuba, *Yet Belt*, 20th century (Gallery 250)
4. Morocco, *Wedding Caftan*, 20th century (Gallery 250)
5. Japan, *Uchikake (Outer Kimono)*, Edo Period, 18th century (Gallery 224)
6. China, Ch'ing Dynasty, *Imperial Portrait of Prince Duo-Lo*, 1775 (Gallery 217)

FLAX PLANT AND SEEDS

WHAT IS FLAX?

Flax is an annual plant that grows in many climates. Its Latin name, *Linum usitatissimum*, means "most useful linen." The Art Cart features a dried flax plant specimen and a jar of yellow flax seeds.

HOW DOES FLAX RELATE TO THE DUTCH REPUBLIC OF THE 17TH CENTURY?

Since antiquity, artists have used both the fibers and the pressed oil (from the seeds) of the flax plant. Some historians believe the Celts introduced flax into Flanders when they occupied France and the Netherlands in the 6th and 5th century BCE. Some modern linguists theorize that the name Belgium originates from the Celtic word "belc'h," which means "flax." A flax industry developed in the region in the 10th and 11th centuries and flourished by the 13th century. The cultivation of flax, with the resulting production of linen and linseed oil, made the city of Bruges extraordinarily prosperous.

Throughout the 17th century the Dutch prospered from the linen industry. Emigrés from Flanders and Brabant (former provinces in what is now Belgium and Holland) who flocked north following the Spanish conquest stimulated the Dutch Republic's textile industries in the late 16th century. These emigrés brought with them their knowledge and skills of textile manufacturing; Leiden and Haarlem became textile industry centers. Haarlem, in particular, became a linen center as Dutch textiles dominated the world market. The extensive Dutch trading network supplied its linen industry sufficient imported raw materials (to supplement what they raised at home), as well as large outside markets for the cloth it produced. The strength of the Dutch industry lay in their successes in the profitable areas of dyeing and finishing textiles. In addition to bleaching linen from Flanders, France, and Germany, Haarlem's cloth-makers made huge profits from dyeing and finishing semi-finished cloth from England.

HOW DOES FLAX RELATE TO THE DUTCH REPUBLIC OF THE 17TH CENTURY?, CONT.

Flax was essential to the production of linen lace, collars, ruffs, and neckerchiefs in the Dutch Republic. (See the linen ruffs on the Art Cart.) In addition to clothing, the flax plant fibers were used to make ship sails and nets. Artists also used linen canvas like that used by artist Rollin Alm in his adaptation of the Gabriel Metsu painting on the Art Cart. The Dutch placed such high value on flax that they brought it with them to Massachusetts and Virginia along with spinning wheels during this period. By the 18th century, several different Dutch provinces exported significant quantities of linen and flax seed.

THE FLAX PLANT

There are different varieties of flax plants. Flax raised for fiber yield features a long (3½ to 4 foot), relatively unbranched stem and bears fewer and smaller seeds (in the pods atop the stems) than that bred for seed. The sample on the Art Cart, with relatively shorter stems and somewhat larger seeds is the preferred type for producing linseeds. The short-lived flowers of flax plants vary from so-called "linen blue" to white.

Flax is a *bast fiber*. This means the fiber bundles exist between the outer bark and woody core of the stem. The fiber bundles (consisting of 98% cellulose) must be extracted to produce linen. These fibers, which run around the core, are attached by gel-like binders called pectins.

HOW IS LINEN PRODUCED?

To produce linen, flax is pulled from the ground (rather than cut) to ensure the full length of the fibers. (Note the roots are intact on the Art Cart flax plant sample.) Although machines are sometimes used to pull the flax plants from the ground today, this labor-intensive job was done entirely by hand during the 17th century. The most perfectly ripened flax, yellow flax, is the best for textile production. The flax "straw" is laid out on the field to be retted, a natural enzymatic process in which sun, rain, and dew dissolve the pectins that hold together the fiber bundles. (In Belgium, the chemicals in the River Lys proved to be especially well-suited to the retting process. They could produce high quality fibers in less time than that required by dew retting.) Then, through a complex process of breaking and beating the flax straw, called scutching, the finest textile fibers are extracted from the bark and woody matter. The fibers are combed and drafted several times to produce slightly twisted slivers of flax fiber, which are then spun into yarn. Once woven, the fabric has to be bleached, dyed, and finished.

FLAX SEEDS

Flax seeds, obtained from the pods of flax plants, are also known as linseeds. Linseed is the primary drying oil for making oil paint. Linseed oil is also mixed with oil paints to change their consistency (viscosity). The reproduction of the Metsu painting on the Art Cart utilizes linseed oil.

QUESTIONS AND ACTIVITIES

Use the flax and linseeds to support discussions of the linen collars and oil painting techniques.

COLLECTION CONNECTIONS

<u>Dutch paintings featuring linen items</u>

1. Artist Unknown, *Lady at Her Toilet*, 17th century (Gallery 310)
2. Jacob van Loo, *Portrait of a Young Girl*, about 1640 (gallery 313)
3. Paulus Moreelse, *van Voorst Portraits*, 1628 (Gallery 310)
4. Pieter Claesz, *Still Life*, 1643 (Gallery 313)
5. Bartholomew van der Helst, *Portrait of a Burgomaster, Jacobus Trip*, about 1665-70 (Gallery 313)

<u>Oil paintings produced on linen canvas</u>

1. Rembrandt van Rijn, *Lucretia*, 1666 (Gallery 313)
2. Salomon van Ruysdael, *River Landscape with Ferry*, 1656 (Gallery 313)
3. Jacob van Ruisdael, *Castle and Water Mill by a River*, about 1670 (Gallery 313)
4. Meindert Hobbema, *Wooded Landscape with Water Mill*, about 1665 (Gallery 313)
5. Ludolph Backhuysen, *Fishing Vessels Offshore in a Heavy Sea*, 1689 (Gallery 313)

OIL PAINTING BASED ON GABRIEL METSU'S *PORTRAIT OF A LADY*

The painting is to be handled by visitors and volunteers with gloved hands only. We have provided a small supplementary prop showing the steps of the 17th-century oil on canvas painting process that may be handled with bare hands.

WHAT IS IT?

This reproduction oil painting was created by local artist Rollin Alm. He based much of his image on Gabriel Metsu's *Portrait of a Lady*, 1667, in the Institute's collection, but took liberty with some of the details of the interior. For example, the puppy, which plays in Metsu's painting, sleeps in Alm's adaptation.

WHAT WAS THE SIGNIFICANCE OF PORTRAIT PAINTING IN THE 17TH-CENTURY DUTCH REPUBLIC?

During the 17th century in the Dutch Republic more portraits were painted of individuals than biographies were written. Prior to this time, portraiture had long been a genre of painting reserved for nobles, aristocrats, famous people, and artists. Although the nobility of the 17th-century Dutch Republic remained the primary source for portraits, the nature and availability of the portraits changed. During this period artists created thousands of portraits of nobles, and regents with noble aspirations, for their private homes. Many of these paintings were pendant portraits of husband and wife meant to show not only their wealth, but also the success of their marriage. Other types included professional portraits proclaiming individuals' and groups' civic identities, and family portraits.

WHAT IS THE SUBJECT OF GABRIEL METSU'S *PORTRAIT OF A LADY*?

Gabriel Metsu's oil painting on canvas, *Portrait of a Lady*, 1667, represents another type of popular portraiture—the intimate, full-length portrait of a wealthy woman in a well-appointed interior. However, the artist did not originally intend for this painting to be a portrait of a real person. He instead planned a *vanitas* painting (a painting intended to remind the viewer of the transience of material goods and human life) of a beautiful, but imaginary, young woman surrounded by all the trappings of the Dutch aristocracy. In Metsu's painting (and Alm's variant) the main subject is a wealthy woman dressed in a stunning blue dress, trimmed in gold and lace. The portrait includes other details typical of this genre: a small dog, a still-life arrangement, and exquisite furniture.

Metsu left the vanitas painting finished except for the woman's face at the time of his death in 1667. It is assumed that one of his students later (about 1680) added the face of a much older woman than Metsu had envisioned. Metsu's student used a real woman's face as the model for his addition, transforming the former vanitas painting into a portrait. As with many other portraits of the period, few of the sitters' identities are known today.

Viewers of portraits like this one would scrutinize the details and delight in adding significance to each. Items like the mirror, silver toiletry set, and candle certainly bespoke the sitter's wealth, but also generally referred to materialism, vanity, life's pleasures, and the brevity of life, common themes in art of the period. The relief design above the door seems to subtly reinforce this warning; it represents Mary Magdalene, a beautiful young woman known for giving up her worldly ways. The Turkish carpet, lively dog, and small book in her hand provide additional interpretive details.

HOW DOES ROLLIN ALM'S ADAPTATION COMPARE TO THE METSU?

The similarities and differences between the original 17th-century Gabriel Metsu painting and the 21st-century adaptation by Rollin Alm is something to encourage visitors to explore at the Dutch Painting Art Cart.

Like 17th-century Dutch portraitists, Rollin Alm made use of a standard array of object types that conveyed symbolic meanings and reminders to the middle class merchants and aristocrats who owned and admired them. Rather than directly copy each of the elements from the original Metsu, Alm has taken some artistic liberties, substituting and varying objects appropriate to both the subject and period.

HOW DOES ROLLIN ALM'S ADAPTATION COMPARE TO THE METSU?, CONT.

Alm used historically accurate oil painting techniques (see "How Was it Made?" below) to create this painting. However, whereas the original Metsu painting is oil paint on panel, the Metsu adaptation is oil on linen canvas. Throughout the 17th century, artists like Metsu favored oil as a medium, using these pigments in much the same manner on panels and canvas. Panels offered an extremely smooth surface that lent itself well to Metsu's exacting style. Canvas did not present the problems of cracking and bowing with the changes in heat and humidity that panels did.

HOW WAS IT MADE?

Rollin Alm's painting and the small oil painting prop illustrate the steps 17th-century Dutch artists typically took to produce an oil painting on canvas, a medium that became increasingly popular during the 17th century. Like Alm, most artists prepared for their paintings by making fully-developed drawings on paper first. These often included compositional drawings and more detailed drawings of particular objects and figures. The patron commissioning the painting dictated the size, format and subject of the work, depending on the amount of money he wanted to spend. In the case of portraits, the subject(s) did not sit for the artist until the very end of the painting process, when it was time to add the face(s). The sitters' bodies, clothing and accessories were usually based on a standard set of drawings of human models in different positions. In his studies for making the painting on the Art Cart, Alm made preliminary sketches based on the Metsu painting and a highly-detailed, but smaller than actual size, silver point drawing from which he made the *imprimatura* or preliminary drawing on the canvas (see below).

Although some artists continued to paint on wooden panels in the 17th century, most painted on canvas, which was considerably cheaper. As was necessary at the time, Alm built a wood stretcher frame on which he stretched and nailed the Belgian linen canvas. (See the back of the Alm painting or the painting technique prop.) Once he stretched the canvas, he sealed (sized) it with gelatin glue. Over this he then painted a white ground composed of chalk and white pigment. Next he created the preliminary drawing, called the *imprimatura*. He then marked out the composition in what is called "dead color," which is monochromatic pigment suspended in linseed oil.

HOW WAS IT MADE?, CONT.

On top of this the artist begins to paint the actual layers of oil paint. As here, it is common to paint from the background forward to the foreground, leaving open spaces for the figures and objects closer to the front of the pictorial space. Because oil paints allow artists to paint over previous designs or mistakes, some painters just added the foreground items over the painted background. Finally, most artists protected their paintings with a layer of varnish.

QUESTIONS AND ACTIVITIES

1. Wearing gloves, carefully pick up the reproduction of the Metsu painting. Look at the front and the back, noting the exposed canvas and paint layers in the upper right corner. What do you notice about the construction and materials? How does it feel? (Heavy, light, etc.)

2. Compare the reproduction with the original. How are they similar? Different?

3. Metsu and Alm have included still life arrangements on the table to the woman's right. How do the still lifes compare? Using the artificial fruits, insects and containers provided on the Art Cart, compose your own still life. Find other still life paintings in the galleries for inspiration. Use the pencils and paper provided on the Art Cart to draw your own still life. After composing a still life using the provided materials, consider how the addition of insects to the composition changes its affect/appearance. What do you see that makes you say that?

COLLECTION CONNECTIONS

<u>Other Portraits</u>

1. Bartholomeus van der Helst, *Portrait of a Burgomaster, Jacobus Trip*, 1665-70 (Gallery 313)
2. Rembrandt van Rijn, *Lucretia*, 1666 (Gallery 313)
3. Thomas Sully, *Portrait of George Washington*, about 1820 (Gallery 308)
4. Degas, *Portrait of Mlle. Hortense Valpincon*, about 1871 (Gallery 321)
5. Goya, *Self-Portrait with Dr. Arrieta*, 1820 (Gallery 308)
6. China, *Portrait of Prince Duo-Lo*, 1775 (Gallery 217)

<u>Other Vanitas Paintings</u>

1. Abraham Mignon, *Still Life with Fruits, Foliage and Insects*, about 1669 (Gallery 313)
2. Pieter Claesz, *Still Life*, 1643 (Gallery 313)
3. Cornelis Jacobsz. Delff, *Kitchen Still Life*, about 1608-10 (Gallery 103, eventually Gallery 313)

SEXTANT

WHAT IS IT?

This is a reproduction of an early navigational device called a sextant. A sextant is an instrument that measures the height or altitude of a celestial body (the sun, the North Star) from the horizon or sea level. Seventeenth-century Dutch traders used the sextant to help them navigate the seas to get to places like Asia and the Americas. Determining the altitude would, in turn, help the navigator to calculate the latitude position of the ship and the location of the next stop along heavily traveled trade routes.

HOW IS IT USED?

The sextant is a triangular metal frame with a telescope/eyepiece attached horizontally to the base of the frame. The sextant also has two mirrors: the horizon mirror and the index mirror. To use the sextant, one aims it at the horizon and looks through the eyepiece toward the horizon mirror. Then, the user rotates the index mirror (located perpendicular to the bottom base) to find the sun or a star. The index mirror reflects the celestial body back onto the horizon mirror and then back to the eyepiece. Once everything is located and reflected, the navigator can read the measurement from the 60º scale at the base of the sextant to find altitude.

WHERE DID THE NAME COME FROM?

The term *sextans* is Latin and means the sixth part of a circle; the term *sextus* means sixth. The original sextant had an arc of 60º which is one-sixth of a 360º circle.

The general term "sextant" was used by navigators to include any instrument that could help determine a ship's latitude. It refers to and includes related devices like a quadrant, a quintant and an octant. These other devices perform the same function as the sextant, but use different scales. For example, a quadrant has an arc of 90º, which is one-fourth of a 360º circle. (The name refers to the actual arc and not to the angle that can be measured.)

WHERE DID THE NAME COME FROM?, CONT.

The true sextant (based on the 60º scale) was invented in 1731 both in England and America. The basic concept of any variety of sextant is that it is constructed and based on a scientific principle of double reflection. Basically, a light that is reflected from a plane (the index mirror) to meet the horizon (through the horizon mirror) is equal to a ray of light that directly strikes a surface.

HOW DOES THE SEXTANT ON THE ART CART RELATE TO THE THEME?

The example on the Art Cart is a reproduction of an 18th-century Euro-American sextant with the 60º scale. While it isn't exactly like what the 17th-century Dutch traders would have used, since the true sextant wasn't developed yet, our model sextant will allow visitors to think about the kinds of instruments that were used to navigate the seas, to feel its weight (since brass was used in the 17th century for sextants and was later replaced by lighter materials) and see all the parts. Have visitors try to imagine what it might have been like to use such an instrument out in the ocean with no land in sight. Also, they can think about how far we've come from simple instruments with scales and mirrors to machines, such as Global Positioning Systems, that can do all the math, charting and computing for us!

HOW DID EXPLORERS AND TRADERS KNOW WHERE TO GO?

The initial sextant was called the mariner's quadrant. This instrument has a scale that spans 90º with a plumb bob (a weight attached to a piece of string) to establish a vertical line of reference. This very rudimentary instrument is likely what Christopher Columbus used when making his voyages to the islands of the Americas in the 15th century. Similarly, Portuguese explorers from the 16th century and Dutch traders from the 17th century would have also used instruments like these to navigate the seas.

Seafarers would use their sextant to mark the observed latitude in degrees of the sun or the North Star (depending whether it was day or night) at selected ports of call up and down the coasts of Europe and Africa. Shortly, lists of latitudes for popular cities and ports were published to guide the seafarer. The mariner's quadrant was difficult to keep vertical on a windy and rolling ship deck. The wind would also knock the plumb bob line out of alignment, so knowing your location was often a difficult process. When the Dutch East India Company started trading around the world in the 17th century, finding one's location became increasingly important for economic success in world trade. Also, there had always been a problem of ships, crews and valuable cargo getting lost because the navigational technology needed more development.

HOW DID EXPLORERS AND TRADERS KNOW WHERE TO GO?, CONT.

Toward the end of the 1600s, the more inventive instrument makers were shifting their focus to optical systems based on mirrors and prisms that could be used to observe the nighttime celestial bodies. Lighter wooden instruments that could be made larger and that had larger scales were subsequently developed. The lighter instruments with larger scales allowed for easier division of degrees for better accuracy. These lighter instruments also had less wind resistance and quickly replaced the heavy brass ones that were awkward to use.

WHAT IS LATITUDE?

Latitude is determined by taking the altitude of the sun as it comes to its highest position at local apparent noon. The navigator then makes a simple correction for the position of the sun north or south of the equator according to the date. (He would obviously know the seasons.)

Latitude was a measurement first developed and discovered by Arab Muslims in the 10th and 11th centuries through their invention of the astrolabe. An astrolabe was used to find the time of the rising and setting of the sun through measuring the altitude of the sun or stars. Muslims would use the astrolabe to find the direction of East in order to face Mecca during their five daily times of prayer. However, it was very complicated to use, so Europeans sought a simpler way to determine latitude through developing versions of the sextant.

WHAT IS LONGITUDE?

Longitude is measured by an imaginary circle that passes through the north and south poles and is exactly perpendicular (90º) to the equator. It is measured east or west from an arbitrary line of 0º longitude (the Prime Meridian) at Greenwich, England. For example, every 15º of longitude is equal to one hour of time, so if you were two hours west of Greenwich, England, you would be at 30ºW longitude.

Longitude was difficult for 17th-century traders to accurately determine. Using the sextant and knowing altitude and latitude was <u>not</u> helpful for them because the sun and stars look the same at all places in a given latitude. To calculate longitude, the navigator needed to know the exact time at which he was making his observations along with knowing the exact time at the location of 0º longitude.

WHAT IS LONGITUDE?, CONT.

Throughout the 17th and into the 18th century, there was a continuous need to develop instruments for determining longitude, due to lost ships and cargo. By this time, navigators had developed a way to calculate longitude based on measuring the angular distance of the moon against other prominent stars. Having these measurements, however, did not guarantee complete accuracy of one's location. Finally, astronomers in the 18th century developed an instrument called a chronometer. This instrument gave the navigator the actual local time where the ship was and the time in Greenwich, England, which allowed the navigator to calculate longitude based on how far west or east of the Prime Meridian he was located.

WHAT DO SHIP NAVIGATORS USE TODAY?

Since the 17th and 18th centuries, variations of sextants have been used to continue helping navigators find their location while sailing the seas. As technology developed, the need for navigational devices continued. There were new variations for submariners and aviators developed in the 20th century. Sextants were very necessary for pilots to drop bombs on enemy targets during the battles of World War II. In the 21st century, we are starting to see the sextant become obsolete. Computers and satellites have the ability to track locations through Global Positioning Systems (GPS) that determine one's geographic position with great accuracy and precision.

QUESTIONS AND ACTIVITIES

1. Pick up the sextant and examine its parts. How does it feel? What are your impressions? What about it makes it easy or difficult to use?

2. Find paintings of ships in the galleries. Imagine yourself out on the high seas with your boat full of spices and other trade items. The weather is treacherous and a storm is on the horizon. Being in that environment, how do you think people used a sextant, with the ship bouncing and swaying in the water? What do you think might have been some of the problems using it in this situation?

3. Look for objects in the galleries (paintings, decorative arts items) that reflect trade on ships. What items do you see that might have been traded and brought to or from the Dutch Republic? What adjectives would you use to describe these trade items? What do you notice about these items that would make them worthy and desirable for trade?

QUESTIONS AND ACTIVITIES, CONT.

4. How is the sextant similar to or different from what you use to find your way or get a sense of direction (like a compass)? Is it more or less complicated? What about the sextant makes you say that?

5. Besides this navigational device, what else would you want to take with you for a long voyage to a far-away country? Why?

6. What are other things that we use to measure? (distances, cooking/baking, speeds, time, length/width/height) Why might it be important for us to know measurements of things?

COLLECTION CONNECTIONS

Dutch shipping vessels from the 17th century

1. Ludolph Backhuysen, *Fishing Vessels Offshore in a Heavy Sea*, 1684 (Gallery 313)
2. Abraham Storck, *The Four Days' Battle*, 1666 (Gallery 310)

Commerce, wealth and acquired trade items in the Dutch Republic

1. Salomon van Ruysdael, *River Landscape with a Ferry*, 1656 (Gallery 313)
2. Pieter Claesz, *Still Life*, 1643 (Gallery 313)
3. Paulus Moreelse, *Portraits of Lucas and Catharina van Voorst*, 1628 (Gallery 310)
4. Dutch, *Lobed Dish*, about 1700 (Gallery 313)
5. Dutch, *Cupboard (kast)*, 17th century (Gallery 313)

Trade items from other cultures

1. Asante (Africa), *Goldweights*, 15th - 19th century (Gallery 250)
2. Anything with glass beads in the Africa galleries (Gallery 250)
3. China, Yuan Dynasty, *Plate*, early 14th century (blue and white ware, 87.62) (Gallery 310)

Objects that measure (time, distance, weight and navigational information)

1. Jean-Antoine Lepine and Joseph Coteau, *Astronomical Mantel Timepiece*, about 1789 (Gallery 311)
2. Pierre-Philippe Thomire and Sauvageot, *Clock with Vestals*, about 1790 (Gallery 309)
3. Joseph Claude Sinel, *Model S Scale*, about 1927 (Gallery 359)

Boats and shipping in other cultures

1. Paul Signac, *Blessing of the Tuna Fleet at Groix*, 1923 (Gallery 323)
2. Ancient Egypt, *Model Boat*, 2133-1786 BCE (Middle Kingdom) (Gallery 236)

EAST INDIES SPICES

WHAT ARE THEY?

Included on the Art Cart are jars of cinnamon, cloves, mace, nutmeg and peppercorns–spices that are quite common today, but would have seemed very exotic and new to the average 17th-century Dutch person.

HOW WERE THEY USED IN THE 17TH CENTURY?

With today's global trade, transportation systems, refrigerators and food processing it is hard to appreciate the value of spices in earlier times. From ancient times, spices had been sought to add flavor to food, to help mask the smell of less-than-fresh meat and to perfume the air. Before the era of the Dutch East India Company's shipping network, spices traveled over land. The journey from the Asian bush or tree to the European table took approximately two years. In the course of the long voyage, the price could escalate to hundreds times more than spices shipped by sea.

Exotic spices were also valued for their medicinal properties and they soon became available in the apothecaries (pharmacies) of major cities. They were used with greater and lesser degrees of success as treatments for fever, malaria, syphilis, smallpox and other serious illnesses.

The manufacturing of medicines in 17th-century Dutch society was complex. Most medicines consisted of plant materials, combined with animal products, vegetables and herbs. The ingredients had to be fresh and the medicine had to be taken on the same day. Fully qualified apothecaries obtained a monopoly on the production and supply of medicines. Together with doctors and surgeons, they formed the triad of the medical state.

The trade in spices and sugar was known as "rich trade," because it yielded higher profits than other raw materials. The Company traded in a variety of spices such as pepper from India and Indonesia, cinnamon from Ceylon (Sri Lanka), mace and nutmeg from the Banda Islands and cloves from Ambon in Indonesia.

HOW DID THE SPICE TRADE DEVELOP?

Until the 17th century, the spice trade was the monopoly of the Portuguese and the Spaniards, who kept their knowledge of sea routes painstakingly secret.

Things started to change in 1592 with the return of the Dutchman Jan Huyghen van Linschoten, after a stay of nine years in the Far East. His extensive knowledge of Portuguese trade routes was published in a series of three books between 1595 and 1596. Shortly after, in 1597, the first fleet of four Dutch ships left for the East Indies. The second fleet departed in 1598 and within two years eight ships returned, their holds filled with spices. Around 1600, no less than fourteen fleets had left the seaports of the Netherlands. Fierce competition among the individual syndicates drove up the buying prices in the East, and the Dutch government forced the merchants to work together.

WHAT KIND OF GOODS WERE BEING TRADED FOR SPICES?

In order to make trade as profitable as possible, the Dutch had developed an ingenious and simple procedure based on supply and demand of local markets. Rather than carrying unwanted expensive European goods, the ships' most important cargo outbound was silver—a relatively small investment—that was used to buy raw silk in China. In Japan the raw silk was exchanged for gold and copper, which was traded for textiles in India. Finally, the textiles were exchanged for spices in the Indonesian Archipelago. Spices comprised up to sixty percent of the cargo of the return ships.

CLOVES

Cloves are the fragrant nail-shaped, dried flower buds of the tall clove tree. They are picked green—between October and January—before the blossom has opened, and dried in the sun for several days until they reach the familiar rich dark brown. It takes seven years for a clove tree to bear fruit.

Cloves are grown in the Moluccas, a group of islands in eastern Indonesia, of which Ambon, in the south, is most known for clove cultivation. The Company gained control in 1605, when they took the Portuguese fort with the help of the indigenous population who considered the Dutch better company. Castle Victoria, as the fort was renamed, became the first permanent settlement for the Company. All entrances to the Moluccas were controlled to prevent smuggling of spice trees.

CLOVES, CONT.

The Company ruthlessly achieved a total monopoly by building control posts, by destroying trees in exchange for military protection and by cutting down trees of any grower who traded illegally. Eventually, Ambon and its surrounding islands were the only place where cloves were grown. Other areas were destroyed and depopulated. The whole harvest was supplied only to the Company.

More so in Asia than in the West, cloves were regarded as a panacea for almost all illnesses. They were administered to treat malaria, cholera and tuberculosis. Cloves were also used for digestive discomfort. Oranges studded with cloves were used as insect repellents. In the West, they were known for relieving toothache. In present day Indonesia, most of the crop literally goes up in smoke, added to tobacco for the distinctive Keretek cigarettes. Cloves were also used to make decorative objects that served as gifts and souvenirs, a tradition that is still alive today.

NUTMEG AND MACE

While the Moluccas were the sole source of cloves in the 17th century, the Banda Islands were the only place in the world where nutmeg grew. The nutmeg trade was unique because it marked the first instance of the Company exploiting its own plantations in a colony. It served as a model for later coffee and pepper plantations on Java.

The nutmeg tree is an evergreen that grows to forty feet. The ripe fruit is picked and the hard, fragrant nut extracted. The nutmeg consists of an edible fleshy outer portion—considered good for seasickness. Inside, the hard brown seed—nutmeg—is covered with a lacy red aril (outer covering), known as mace. After harvesting, the outer skin of the fruit is removed and the nutmeg is dried in the sun until the mace turns yellow-brown. Consequently, the nut is roasted for months in special ovens until it is ready to be cracked open. The pit is then put into a mixture of lime to prevent germination, which explains how it gets its white color. Both nutmeg and mace are important herbal medicines, known as remedies for many digestive problems, intestinal infections and rheumatic conditions.

CINNAMON

As with pepper, cinnamon was in high demand in Europe during the 17th century. By 1602 the Dutch established their first successful cinnamon contacts, and, within several decades, they acquired another monopoly in the spice trade with the help of local rulers. As was the case in Ambon, the Company decided to concentrate the cultivation in one controllable area. Elsewhere, large areas of cinnamon trees were being cut down. The Company held several ports at Ceylon (present-day Sri Lanka), of which the most important was the harbor of Galle, in the southwest.

CINNAMON, CONT.

True cinnamon is native to Ceylon and India. Ceylon cinnamon is more subtle in flavor and considerably more expensive than the coarse bark sold as cinnamon in Indonesia and other parts of Southeast Asia. This version is a thick, dark brown bark of a type of cassia tree, native to China and Japan. Traditionally, cinnamon is taken for colds, flu and digestive problems. It is also thought to reduce blood pressure and fevers.

When the trees are harvested, between May and August, peelers scrape the outer bark away, revealing the inner bark—the cinnamon. The inner bark is rolled off the branch by hand or by using a small tool. The succulent strips are put together to form long sticks, which are dried in the sun for several days. Before being shipped, the cinnamon sticks are tied up into large bundles. Harvesting before modern plantations was hard work, because cinnamon trees grow in the wild. Workers had to cut their way through thick forests to locate a group of trees. It was the work of the lowest-status groups in society. Like the clove tree, it took about seven years before the first harvest.

PEPPER

Pepper was the most sought after commodity in the 17th century. It was used as a preservative for meat, as a seasoning for food and as an ingredient in medicines. The major trading ports were along the coastal areas of Sumatra and Java. Just as in so many other places, battles were fought to obtain exclusive trading rights. However, because the pepper producing regions were so extensive, and trade long established, the Company never was able to gain full control. Their major competitor remained the English. Nevertheless, with the help of the sultan of Bantam, a city on the northwest coast of Java, the Company secured a dominant position in the international pepper market by 1680. In exchange for Dutch military support, the sultan agreed that all European competitors were denied access to the Bantam harbor.

The sharp taste of pepper has a stimulant effect on the digestion and circulatory systems. Peppercorns are the berry of a vine native to India, brought to Indonesia centuries ago. Its cultivation is intensive, because these woody climbers need to be pruned and weeded regularly. The fruit is harvested from plants at least three years old. Both black and white pepper come from the same bush. Black peppercorns are picked unripe and dried with the skin intact. White peppercorns have the skin removed and are picked when the berry has fully ripened. They are soaked in water for several days. Green peppercorns are picked unripe and pickled, while red peppercorns are picked ripe and dried.

QUESTIONS AND ACTIVITIES

1. Smell each of the different spices on the Art Cart. Which one(s) do you recognize? Which one(s) do you like best? Least? Why? For what purposes do we use spices today? (Explain how spices were used in the 17th century.)

2. The 17th-century Dutch were intrigued with "exotic" spices, textiles, ceramics, teas, etc. Why might they have so valued and admired these "exotic" goods? What imported goods are valued in the modern U.S. economy? Do you have a favorite imported product? What is it? Why?

3. Do you collect or trade anything? What? Why? (Baseball cards, Pokemon cards, coins, stamps, etc.)

COLLECTION CONNECTIONS

<u>Trade goods as materials in art works</u>

1. Africa and the Americas: glass beads, cowrie shells, etc.
2. Great Plains, Anishinabe, 20th century, *Cape* (beads, cotton fabric, mirrors, velvet) (Gallery 367)

<u>"Exotic" subjects</u>

1. Japan, *Taoist Immortals* (screen in Audience Hall) (Gallery 222) (Chinese subject)
2. Gauguin, *Tahitian Landscape* (Gallery 321)
3. Gérôme, *The Carpet Merchant* (Gallery 306)
4. Korea, *Dragon jar* (Chinese dragon) (Gallery 206)
5. Korea, *Kwo Tzu'i's Banquet* (Chinese general) (Gallery 206)

<u>Dutch East Indies trade influence</u>

1. Spice box (Gallery 362)
2. Metsu, *Portrait of a Lady*, 1667 (Gallery 313)
3. Dutch, *Lobed dish*, 1700 (Gallery 313)
4. Claesz, *Still Life*, 1643 (Gallery 313)