The Cleveland Museum of Art

Repeat, Repeat, Pattern, Pattern

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Cover Teapot and Cover, 20th century, Japan. Cloisonné. Lent by Mrs. J. J. Tracy 775.1919.a–b

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Pattern is the repetition of any element—line, shape, or color, for example—in a design. What is being repeated is often referred to as a “motif.” The objects included in *Repeat, Repeat, Pattern, Pattern* are full of motifs as diverse as diamonds, flowers, butterflies, birds, clouds, and mountains. By learning a more perceptive way of seeing and thinking about pattern, students can gain a respect for nature, establish a closer relationship with the natural and constructed world, and more fully appreciate the ideas and skill of artists, the many possibilities that art materials present, and the intriguing qualities of works of art.

Things we see and use every day have patterns—we have only to notice. Design elements from nature include lines (the markings on a zebra), shape (the concentric circles on a tree stump), and color (flower petals and butterfly wings). Humans also create patterns (picket fences, slate roofs, corduroy and polka-dotted fabrics, the black and red squares of a checkerboard, and the pockmarks texturing a golf ball). The nine objects in this suitcase illustrate pattern used for its aesthetic appeal. Made in various times past and present, from places around the world, and with a rich array of materials, all nine were made to be used. Sometimes how an object is designed determines how it functions and at other times the opposite is true—its purpose helped the artist choose a design. Pattern enhances our pleasure in using these objects and adds to their beauty in interesting and striking ways. As you examine each work of art, consider why it was made, what it was made from and how, and the way in which pattern enlivens its look and feel.
Even if you’ve never seen this particular piece before, experience with similar objects may help you identify it. Why would such a hard and heavy-looking material be used to make a hat? This object is, of course, a piece of armor, intended like all protective gear to shield the wearer from harm. In fact, helmets are the earliest known form of body armor. The armorer was part blacksmith and part engineer, cutting sheets of metal into rough shapes and then working them with heavy hammers and other tools. Made from steel (a mixture of iron and carbon), this particular helmet was perfectly designed to fulfill its purpose—the conical shape would deflect arrows or sword blows, and the hard plate armor would kept objects from penetrating the surface. Even so, the wearer’s face and neck would have been vulnerable.

While skillfully crafted to facilitate its function, the cabasset has other attributes to admire. Engraved patterns radiate from peak to rim. The ridges and grooves were intended to give the helmet the feel of folded fabric (body
armor was similarly treated). The decorative bands consist of plain areas alternating with narrow rope-like strips on either side of a string of images, which include chimeras (fanciful mythological hybrid creatures), trophies such as helmets and shields, and harps. Perhaps these motifs are like today’s sports team logos—could the frightening bestial image symbolize the wearer’s ferocious power in battle? And the trophies foreshadow the soldier’s triumph, shoring up his courage as he goes off to fight?

The imagery is similar to motifs called “grotesques” found in the margins of medieval manuscripts. An additional floral motif, rosettes attached with brass rivets, encircles the skull just above the narrow rim. The front of the helmet bears a crest that would have indicated in whose service the wearer was employed. Today the surface of the cabasset has a warm brownish patina because the finish has aged; originally it would have been bright and shiny except for some recessed areas that were deliberately darkened for contrast.

This type of military headgear originated in 15th-century Spain (capacete is Spanish for “cap”) but was also made and used in other European countries. It was commonly worn by foot soldiers during the 1600s. While not as protective as a helmet with a closable visor, an open-faced cabasset offered a soldier the advantage of being able to both see and aim.

Every soldier needed body armor, lance or bow and arrows, horse, and helmet. Plate armor became obsolete with the invention of more advanced weapons, and today we find armor romantic and bursting with intrigue; this example is notable for its odd shape and allover pattern.

While some objects are meant for a specific purpose, such as a steel helmet made for protection, other objects are created to be used in concert with other things. This object was carefully prepared to make something else that could then be used. What might that something be? How might it be used? What might you make with it?
This block of wood came from a much larger piece that was sawed into a rectangular shape and sanded smooth. The diamond shapes were carefully carved or chiseled. These single diamonds in vertical rows were formed by cutting an outline around each and leaving diamond-shaped centers intact. The larger diamond pattern is made of 20 small cutout diamonds. Look closely to see that inside each tiny diamond is a perfectly straight and centered pin that was driven in once the carving was complete. Particularly subtle is the two different orientations of the composite diamonds (some have rows of five at the top left and some have rows of four), which are angled in opposite directions on the block. A simple diamond motif has been repeated in several different ways to create a sophisticated composition.

The fine craftsmanship of this woodblock is significant because it was used to produce patterned fabric or paper. The more perfect the block, the purer the image—any gouges in the wood would mar the final product. Carved on the back are “JT Larking” and “Hackneye,” probably indicating
the printing company that owned the block. The inventory number “698” painted on the side shows that this block was one of many used by the printers. Perhaps it was made by an American devotee of the British Arts and Crafts movement, which promoted the idea of the “master craftsman” and valued such design elements as simplicity, repetition, and geometry.

Once the artist has finished cutting a design into a block of wood it is ready for use. Only what is on the surface, the top, will be inked and thus transferred to the fabric, creating a “positive” image. All the areas cut out by the artist won’t get inked and printed, making the “negative” part of the pattern. The printed pattern will always be the reverse, or a mirror image, of the pattern on the block. Why does that happen?

The notches (negative shapes) along one of the short edges match the diamond points (positive shapes) protruding from the opposite edge. This system helps the printmaker accurately place the block time after time on the fabric or paper to make multiple images in perfect alignment, or registration. In this way the artist can print a length of fabric with a continuous pattern of perfectly registered images transferred from the woodblock. On the back of the block depressions for the thumb and fingers make it easier for the printmaker to handle the block when printing. Being able to hold the block steady assures crisp images.

**Interactivity**

**Materials:** Woodblock, roll of paper, crayon.

**Activity:** Presenter places paper over woodblock and rubs the paper with the side of a crayon. A student can do a second rubbing, registering the block to create a pattern.

**Notice:** Compare the woodblock to rubbed image. The positive areas show up in color and negative spaces reveal their shapes but do not show any color; the pattern of the rubbed picture is the mirror image of the pattern on the block.

**Alternative:** Show a rubbing of the block repeated several times.
This flashy object made of white clay is heavier than it looks. The front has a decorative pattern, and the material on the back would have held it in place in its original use. What is this object and what was its function? This is a tile, perhaps the simplest form of ceramic art. The earliest known examples are Egyptian, from 4000 BC; tiles were made by other early cultures, including the Assyrians, Babylonians, and peoples of the Islamic Empire. Many mosques display Koranic scripts of brightly colored tiles. Muslim princes who escaped destruction from rival dynasties found refuge in Spain, where their culture thrived from the 700s to 1400s. Because orthodox Islam forbids the representation of people and animals, Muslim artists became masters of geometric ornamentation. Palaces built in Spain by these Muslim princes remain today, noteworthy for their delicate geometric ornament in wood, plaster, and tile, as well as their survival after the reconquest of the area by 15th-century Christian armies.

Whether or not this tile is really 700 years old, its pattern is typical of tiles and mosaics found on the ceilings and walls of places like the Alhambra in Granada, Spain. The design—a complex pattern of interlocking lines enclosing geometric shapes—is centuries old. The interlacing white lines are carved bands with raised edges that weave over and under one another, floating above a lustrous gold-colored ground. In some places
where the lines intersect they outline small shapes of metallic blue glaze that seem to recede into the background. Other shapes and sometimes groups of shapes repeat. Artists also pieced together smaller individual pieces of tile to achieve a design with a similar look. This systematic way of organizing shapes to fill all the space with geometric forms is called tessellation.

Whether tiles or smaller mosaic pieces were used, each would have been mounted on a ceiling or wall. What would the larger pattern be? Identical tiles rotated 90 degrees create the pattern. At each intersection of four tiles new shapes form across the seams. In some places gold shapes meet and in other places blue shapes meet. At these intersections the new shapes created from the juxtaposition of four tiles generate sunburst designs. Each tile with its own pattern of lines and shapes is one element in the grander scheme. The overall result is the kind of ornate effect for which Muslim art is famous.

Tiles are made with dry, “leather hard” clay. Starting with a ball of clay, the artist uses a rolling pin to flatten it into a slab, rolling first one way, then turning the slab 90 degrees and rolling it again to keep the clay from warping. When the slab has been flattened to the desired thinness, squares can be cut. The tile is then carved or pressed onto a form bearing the desired pattern, transferring the pattern.

Tile squares are air dried and then “bisque fired” in a kiln or oven. After cooling, the bisque ware is painted with glazes and then fired again, which makes the tile more durable and creates the shiny glass-like glazed surface. In Moorish Spain tiles and mosaics decorated the facades of buildings, created wallpaper-like patterns in interiors, surrounded doors and windows, and even marked passageways on sidewalks and streets. Today, the profusion of repeated patterns still gives the exteriors and interiors of homes, public buildings, and places of work a lively appearance.

**Interactivity**

**Materials:** Worksheet showing outlined patterns of four tiles forming a square with each tile turned 90 degrees, crayons.

**Activity:** Students choose one element of the pattern to color wherever it appears in each of the four “tiles.”

**Notice:** Intricacy of pattern, repetition of shape in the tiles, how tiles complement one another and complete a larger pattern.
This textile has been pressed between two sheets of plexiglass to protect it from dirt and damage. Little is geometric or even “regular” about any pattern here. Rather, repetition of intriguing elements reveals a more unusual type of pattern that calls for a game of “I Spy.” On close inspection, the motifs appear to be linked together and repeat vertically. Does the boat appear again? How about the building? The dog sits with its back to a boat and waterfall cascading down into the river that flows around the spit of land holding a ruined temple and carries the boat toward the shore. Notice how the earth beneath the tree appears to end at a jagged edge, but leaves of another tree curve above the dome of the temple. One part of the composition dissolves into another, and the whole intricate yarn starts over again. What explains the motifs in this puzzling piece of printed cloth? The figures could be personifications of “Time” and “Love.” In Greek mythology, the god of time is an old man called Saturn. The god of love is a youth known as Cupid. The convoluted imagery here could be an illustration of Shakespeare’s poem “Time and Love,” with the aged Time taking Love away in a boat in a dramatic setting.

The scene is printed on cotton cloth that has a tabby, or plain, weave, which produces an even, flat fabric with a smooth surface, ideal for printing. In Europe printing on plain fabric developed in response to the popularity of “chintz” textiles imported from India beginning in the early 17th century. These fine cotton fabrics were patterned with richly colored painted and dyed designs. European woodblock printing could produce detailed designs but required the preparation and difficult registration of separate blocks for different colors. Before the invention of mechanical techniques, textile production required time-consuming manual labor. Labor expenses coupled with the high cost of raw materials made textiles a luxury item, an important commodity in the international marketplace and a status symbol.

In the late 18th century a method of printing with engraved copperplates was developed in Ireland that made printing designs with fine detail possible but still only in one color. Roller printing, a mechanical improvement on the copperplate technique, was developed in England in the late 18th century. The copper roller allowed printing larger quantities of fabrics at greater speeds for lower prices, which dramatically increased production of printed cotton in the 19th century.
Printed Linen Textile, 19th century, France. Ink on cotton. Gift of George W. Bierce. 1938.186
That method was probably used to print this piece of fabric—it explains the continuous pattern. Notice the fine lines and cross-hatching in the design, which would have been scratched into the copper and then inked. Darker tones result where more lines are placed close together, where there will be more ink, and light areas exist where there are fewer or no lines. It’s remarkable how the entire picture with its three-dimensional forms was painstakingly produced with millions of tiny lines.

In 1760, a Swiss-born artisan established a textile factory at Jouy-en-Josas near Paris. To this day, pictorial printed cottons like this example are called toile de Jouy after this successful factory at Jouy.

Why would a late 19th-century French textile use a classical Greek motif? Many different kinds of subject matter were appropriated for designs: floral, chinoiserie (showing Chinese influence), political scenes, genre subjects, fables, popular literature, and mythological tales. Printed in red ink, this fabric would probably have been used for drapery or other home furnishings.

While the design and shape suit its intended use, other features of this lantern also contribute to its effectiveness. It was designed to hold a burning candle. A thin piece of animal horn or other translucent material would have covered the open space in the door, shielding the candle from drafts but letting light from the flame shine through. Another illuminating
element is the repeated pattern of holes covering the surface. What looks like decoration was a way to increase the amount of light emitted by the lantern—light would shine through every one of the many holes.

Tin is an inexpensive natural element available in many forms. Ingots can be melted to form sheets, which can then be cut to size with a snips. This lantern was probably made from several pieces of recycled tin. Once the pieces were cut to size they would have been laid on a template so the holes could be poked according to a pre-drawn pattern. The walls inside are smooth to the touch, while the outside is rough as a result of the flanges edging every tine hole. Once pierced, the pieces of tin would have been hammered into the desired shapes and crimped together. Tin is malleable, making it pliable enough to shape easily. Tin is a light-colored metal, and this lantern may have been shiny when it was new, reflecting the candlelight and adding brightness. The lantern has darkened over time as the natural properties of the metal and oxygen in the air have mingled on its surface. Perhaps you’ve used a lantern at a campsite in the woods, or to light up your backyard patio on summer nights. How about when the electricity goes out and it’s dark in the house?

This pierced tin lantern is about two hundred years old. Who might have made it and used it when it was new? Paul Revere–type, pierced lanterns like this one were used throughout the 18th and early 19th centuries in America. They illuminated rooms in houses. They could sit on tables and desks, or hang from stands or pegs in walls and ceiling beams; they weighed little and could be easily moved from room to room; they could also be used outside by farmers, soldiers, and guards to light wagons and carriages, or anywhere where light was necessary.

Interactivity

Materials: Flashlight, rubbing of pierced holes pattern.

Activity: Turn off classroom lights, close blinds, etc.; shine a flashlight through the lantern onto a chalkboard or blank wall. Move closer to and farther from the wall.

Notice: Pattern creates pattern; the pattern of light and its relation to the pattern of holes in the lantern (compare with rubbing); effect of proximity and movement on the pattern of light; negative shapes (the holes) create positive images of light.
What creates the sense of movement in this medallion? In short, the circular pattern. The body of the Manchurian crane in the center forms a circle hovering over the plump peaches of immortality. The wings of the other cranes are arched and their necks are bowed. The bats have rounded wings with curved ends. Even the fruits, flowers and their stems, and other symbols have organic rounded forms. Spiraling mushroom-shaped clouds drift among the figures and along the edge, emerging and fading away in a variation on the movement of the other floating elements. Everything encircling the crane creates a pulsing rhythm, as if the objects are engaged in a rhythmic dance.

Concurrent with the circular movement is a stabilizing symmetry. Notice the arrangement of four cranes, perfectly spaced on either side of the central crane. The bottom cranes, along with the fifth above, create a triangle with corners anchored by their extended wing tips. Similarly, the bats are arranged two on each side, with one directly below the central crane, the top of an inverted triangle. Repetition of
these two motifs and their arrangement steadies the motion, producing an overall effect of balance and calm.

This roundel has been mounted to a piece of linen for display. Look closely and you will see that the birds and other figures are made of countless tiny stitches of silk thread. Made in China, the roundel draws on a long tradition. China is the birthplace of silk, where it was first cultivated 5,000 years ago. The Chinese invented many ways of working with silk, all of which are reflected in imperial court dress. As many as 10 or 20 women and men worked to make one garment. Parents and children worked side by side in the cultivation and harvesting of silk, which was made by silkworms, the larva of the bombyx mori moth. Men and boys did the heavy weaving, dyeing, cutting, and tailoring; handicraft workers usually were women.

This roundel was one of four to eight medallions of a woman’s informal robe. Official, or formal, robe medallions featured imperial dragons. A long loose flowing outer garment, the robe probably belonged to the wife of a first-degree civil official in the Qing Dynasty (1644–1911) government since Manchurian cranes were the official emblem of that rank. The Chinese aesthetic of linking color, fabric, decoration, and symbolism to seasons, events, status, and religious rituals was a part of Manchu-Qing custom. The robes were believed to have transformative powers for the relationship they established between the wearer and the Chinese court.

In traditional Chinese symbolism, the crane is both an emblem of longevity and a messenger of wisdom. Cranes transport the sages, who also travel on clouds. Cranes flying into the sky symbolize a rise in status. Bats are an emblem of good fortune. When something is depicted upside down it means it has arrived, so the depiction of an upside-down bat signifies that good fortune has arrived. The Five Bats of Happiness, or Wu Fu, stand for the five blessings of long life, riches, health, love and a natural death. The peach is considered the “fairy fruit,” the elixir of life, bringing immortality and symbolizing marriage and spring. This intricate masterpiece with its dynamic curvilinear composition contains motifs expressing these traditional and hopeful beliefs.
Pecking chicken toys, an example of folk art, first appeared in Russia more than 300 years ago. Many versions of this simple toy have been made, in varying sizes and sometimes with more chickens and painted in different patterns. This one is contemporary, made in Poland. Demonstrating patterns in motion and sound, this type of old-fashioned animated toy has been delighting children of all ages for generations.

When the paddle is moved and the ball begins to swirl around under the paddle what happens? These are hungry chickens indeed! But beyond the fun of watching the chickens “eat,” the pecking chickens reveal simple mechanics at work. To demonstrate, first hold the toy’s handle flat and still. Notice that, when still, the ball hangs freely straight down below the paddle. Without “doing” anything, you can see or otherwise sense that gravity pulls the ball down. The weight of the ball and the force of gravity both transfer to the strings and keep the chickens at rest.

Now, keeping the paddle flat, move it gently one way in a horizontal circular motion. What happens? Gravity continues to pull the ball down, but the circular motion alters the angle of each string, which translates into the amount of pull on each neck. As the tug on each string increases and decreases the chickens’ heads bob down and up. The faster you move the paddle, the faster they peck, lunging for their dinner with increasing enthusiasm!

As long as the rotary motion continues, the chickens will move in a sequence, in the same order, around and around and
around, over and over. What do you hear? The rhythm of the sequential pull of the ball on each string translates into both visual and audible patterns as the chickens’ necks and heads move down and up and the repeated sound of their peck ... peck ... peck is expressed as a rhythmic beat.

What happens if you swirl the paddle faster, or in the opposite direction? All motion is affected by mechanics, or the transmission of forces. Magnitude, velocity, acceleration, and direction all are important. We can demonstrate these concepts by testing and observing changes in motion. Slowing down, speeding up, and changing direction are all changes in motion applying different forces to the strings and the chickens. Inertia, or resistance to changes in motion, is a property of all things. Rotational inertia describes how an object will move until a force opposes its motion. Besides the pecking chickens, many other children’s toys use inertia.

Related to the Spanish tile because both are made of clay, this beautiful jar has a very different look and feel. How would you describe these differences?

The delicate light feel results from the thinness of the walls. Soft to the touch, the surface decoration harmonizes with the shape of the pot: curving figures and lines wrap around the bulging middle of the piece; angular shapes and straight lines rise up the neck to the rim. The pot fits comfortably in the hand, swelling out to meet the contour of your fingers. The rhythm of rising and falling and gliding from one motif to another is a key design quality. Notice how the slope of the mountain flows down into the valley and then spirals up and around becoming the breast and beak of the bird. The stair steps, clouds, and areas of rain are all...
connected as well, becoming one complex pattern comprising three distinct symbols. This intriguing imagery conveys a culture’s symbolic language.

This small jar was made by an unknown artist from the North American Indian Acoma nation. Located in New Mexico near the Rio Grande River, the Acoma Pueblo is known as “Sky City” for its location atop a 367-foot-high mesa of sandstone. One of the legends of the Acoma people is a story is told of sacred twins who lead their ancestors to Ako, the magical white rock that became their permanent home. The twins also discovered and shared with their people the whitest, finest clay in all the Southwest.

The local slate-like clays are strong enough to allow the production of very thin ceramic walls. When traditionally fired, these clays produce a white vessel. Thin-walled, large ollas (Spanish for “water container”) slipped in pure white and decorated in red and black are typical of Acoma pottery since the 18th century. At the bottom of the Acoma mesa is a spring, and women hauled water to the top of the mesa in jars on their heads. To facilitate balance, the jars have a concave bottom to fit their heads.

The Acoma Pueblo claims to be the oldest continuously inhabited settlement in the United States (the Hopi peoples of Old Oraibi village also claim this distinction). Over the course of Acoma history, pottery has been used to store goods or for spiritual, medicinal, and recreational purposes. In 1880, the railroad caused a major change in the pottery market. Traders and tourists were unable to travel with large ollas, so potters began making smaller, more manageable pieces. Because of its modern origin and small size, this pot is most likely a piece made to be sold to tourists visiting the pueblo.

Like most Acoma pottery, this vessel was constructed using a simple hand-building method called coil pottery, which involves rolling or squeezing out ropelike lengths of clay. Finished coils are stacked one on top of another to create the desired form. As coils are added they are fused together both outside and inside to form the pot and give it strength. Gently scoring or scraping both edges of the coils being joined and pressing them together creates a joint that the potter then smoothes out. This pot was made with short circles of coils at the bottom, longer circles of coils where it widens out in the middle, and then shorter ones again where it narrows at the shoulder and neck. Isn’t it surprising that close examination
of the surface of this pot fails to reveal any hint that it was made from numerous separate coils combined together?

Once the vessels are dry they are sanded for a smooth finish. Traditionally, the Acoma people use both mineral- and vegetable-based paints for their designs, boiling the materials until the desired natural colors are attained. Their brushes are made from yucca stems. Crisply defined elegant shapes and fine lines create repeated patterns of birds, flowers, rainbows, and other symbolic and geometric designs. Finally, the pottery is fired outdoors with cedar or other wood chips. The smoky area on the side of the pot resulted from the conditions under which it was fired.

Acoma potters have traditionally added finely crushed shards of pottery to their clay. Nearly every broken vessel is saved for re-use in this manner. Vessels made today by Acoma potters may well contain fragments of prehistoric pottery.

The many colors precisely placed in the decoration of this teapot and lid are remarkable considering how the ornamentation was created. Examine the flowers and butterflies; look closely at the green and blue background. Around and within what may appear to be solid fields of color, swirl finely worked wire spirals. This high-quality enamel work is more complicated than it might look.
Cloisonné, a traditional method of making enamelware, originated in China more than 500 years ago. The process requires several complicated steps. Copper, which is easily hammerd and formed, is used for the body. First, the artist creates the desired shape of the piece, paying attention to contour, proportion, and weight. The second step is filigree soldering, or adhering copper strips 1/16 inch in diameter and of varying lengths onto the body. Strips of filigree on the teapot created the complicated pattern of flowers, leaves, butterflies, and rocks as well as the delicate spirals in the background.

Color is applied during the third step known as enamel filling. Enamel powders consist primarily of boric acid, saltpeter, and alkaline. The artist carefully places these finely ground powders in the cells separated by filigree. The different colors come from other minerals added to the powder: uranium for yellow, chromium for green, zinc for white, bronze for blue, and gold or iodine for red. The fourth step is firing: The vessel covered with enamel filling is placed in a kiln or oven. The enamel powders fuse in the heated atmosphere, forming a vitreous glasslike coating. The enamel can sink down, requiring more than one application of powder to the cells, and this process goes on repeatedly until the little cells are full.

Finally, the piece is polished to make the filigree and the filled compartments level. After a first polish the piece is heated again and then polished once more to make the surface smooth. A final polish creates a warm luster.

An unknown artist expertly worked through these laborious steps to create the decoration on this teapot. Each petal, each leaf, each section of each butterfly’s wings was planned, outlined with filigree wire, and carefully filled with specially mixed enamel powder. After repeated filling, firing, and polishing the teapot reached its final form. The repeated colors and motifs, the similarity in size of the evenly scattered delicate floral elements and leaves, and the myriad tiny spots in sparkling shades and copper line create a balanced and lovely fresh effect.

Although drinking tea was originated in China, teapots as we know them today were a European invention. This teapot was most likely created as a collectable decorative object and not meant to be used. A treasure, it is in excellent condition except for the slightly crooked chrysanthemum finial and some copper showing through on the handle.
Pattern is vital to this collection of objects, and almost all works of art, yet pattern is chameleon-like, changing its appearance with each artist’s touch. These nine works of art were made in Europe, Asia, and North America; seven hundred years separates the oldest (the 14th-century Spanish tile) from the newest (the 20th-century pieces). Whether carved or painted on clay, assembled or cut in wood, printed or stitched onto fabric, enameled, engraved, etched, or pierced into metal, pattern gives each piece its character. The qualities we most enjoy—pleasing designs, beautiful imagery, calming symmetry, dynamic movement, sparking surface decoration, playful animation—are accomplished through the richness of pattern. For all its significance and adaptability, pattern is created through the repetition of the artist’s most basic tools: color, line, and shape. Using abstract form, geometric figures, or images from nature, making art means making patterns.

We should not underestimate the significance of the choices artists make nor the skillful and clever ways they put together the elements in their art box. There is no one way of making art, just as we all see a work of art in a different light. We have to look carefully, discover what elements the artist has arranged and how, and appreciate the work our own way.
Vocabulary

**Acoma Pueblo.** Known as Sky City, Acoma Pueblo was built on top of a 357-foot sandstone mesa many hundreds of years ago. This 70-acre settlement in New Mexico claims to be the oldest continuously inhabited city in the U.S.

**armor.** Protective covering, usually made of metal, used to defend its wearer from intentional harm in combat and military engagements.

**bisque ware.** Clay that has been fired once but not glazed.

**cabasset.** Metal helmet with a conical or almond-shaped apex and a small brim; worn by foot soldiers in the 16th century.

**carve.** Engrave or cut by chipping away at the surface of a block of material to shape it into a particular form.

**cloisonné.** Enamels fused inside a wire enclosure (a cloison) on a metal or porcelain ground, forming chambers (cloisons) to receive vitreous enamel pastes.

**coil pot.** Pottery made by building the walls of a pot with a series of coils, snake-like ropes of clay, to attain the desired height and shape. The surface can either remain coil-textured or be smoothed.

**color.** Element of art with three properties: hue or tint (red, yellow, blue, etc.); intensity or strength (bright or dull); and value (lightness or darkness).

**enamel.** Vitreous transparent or opaque protective decorative coating made from silica heated in a kiln and fused onto metal, usually copper.

**embroidery.** Decorative needlework in which designs and pictures are created by stitching strands of some material, usually colored thread, onto another material.

**engraving.** Creating a design on a hard, flat surface by cutting grooves into it. Engraving may create a decorative object, as when silver or gold are engraved, or a printing plate from copper or wood.

**form.** Something that encloses volume and is three-dimensional (having height, width, and depth), including all the visible aspects of that structure and the manner in which they are united to create its distinctive character.

**geometric.** In design and decoration, characterized by simple forms with regular contours such as planes, lines, circles, squares, ovals, rectangles, trapezoids, cylinders, and spheres.
**glaze.** Thin coating of minerals that produces a coating on bisque ware ceramics. Typically applied by brushing, dipping, or spraying, a glaze is fixed by firing the bisque ware in a kiln, making the surface smooth, shiny, and waterproof.

**line.** A mark with length and direction(s). The many types of lines can be described by their direction, angle, thickness. In works of art lines may outline shapes, create patterns, or suggest movement. Lines may be two-dimensional (as with pencil on paper), three-dimensional (as with wire), or implied (the edge of a shape or form).

**motif.** Consistent or recurrent conceptual element, usually a figure or design. In an architectural or decorative pattern, a motif is the central element, or it is repeated consistently or as a theme with variations.

**pattern.** Effect created by repetition of motifs. Ten classes of patterns, each with a particular function, make up the physical world—natural and human-made—at all scales.

**sphere.** Three-dimensional form shaped like a ball, circular from all possible points of view.

**mosaic.** Picture or design made of tiny pieces (called tesserae).

**lattice.** Criss-crossing or interlacing.

**polyhedra.** Three-dimensional figure bounded by polygons. Each of its sides is called a face; each of the straight lines describing the meeting of faces is called an edge; each point at the end of an edge is called a vertex.

**spiral.** Two kinds of spirals exist: helixes (three-dimensional spirals that lie on a cylinder or cone) and volutes (flat or nearly flat scrolled or whorled spirals or twisted formation or objects).

**meander.** Following a winding and turning, seemingly random or chaotic course.

**branching and circulation.** Path of linear growth of a second thing out of another.

**wave.** Having a series of ridges, deformations, or undulations.

**symmetry.** Parts organized so that one side duplicates, or mirrors, the other; known as formal balance.

**fractal.** Geometric pattern repeated at ever smaller scales to produce irregular shapes and/or surfaces that cannot be represented by classical geometry.
**personification.** Person or creature representing an abstract quality or idea.

**positive and negative space.** Positive space is filled with something, such as lines, color, shapes, or designs; negative space is empty.

**registration.** Printmaking term describing the proper positioning of multiple plates to achieve the exact alignment of shapes, edges, or colors in various areas of the print.

**rhythm.** Visual tempo or beat. The design principle that refers to a regular repetition of elements to produce the look and feel of movement, often achieved through the placement of repeated components that invite the viewer’s eye to jump rapidly or glide smoothly from one to the next.

**roundel.** Circular work of art or a circular element of a work, design, or symbol.

**shape.** Enclosed space having two dimensions—length and width—defined and determined by elements such as line, color, value, and texture. Shapes can be geometric or amorphous.

**symbol.** Something visible that by association or convention represents something else.

**symmetry.** When parts of an image or object are made or organized so that one side duplicates, or mirrors, the other.

**tapestry.** Textile in which a colorful design or scene is formed by weft threads hand-woven into the warp.

**tessellation.** Fitting shapes together to cover a surface without overlapping or leaving gaps.

**textile.** Fabric or cloth, usually made by weaving or knitting fiber such as thread or yarn, either natural (cotton, flax, wool, etc.) or synthetic (nylon, rayon, polyester, etc.).

**texture.** Actual or simulated surface quality or “feel” of an object demonstrating smoothness, roughness, softness, etc.

**toile de jouy.** Pictorial printed cottons named for the French factory where they were first made.

**woodblock print.** Print made by cutting a design in the side-grain of a block of wood. The ink is transferred from the raised surfaces of the woodblock to paper.
Bibliography


List of Objects

Cabasset, 1575, Italy. Steel. Educational Purchase Fund. 1923.1072


*Pecking Chickens*, 20th century, Poland. Wood. The Harold T. Clark Educational Extension Fund 1965.571


*Teapot and Cover*, 20th century, Japan. Cloisonné. Lent by Mrs. J. J. Tracy 775.1919.a–b