

SURFACE & LIGHT

SUBJECT: VISUAL ARTS, GRADES 9–12

INTRODUCTION >

In the 1960's and 1970's, artists from Southern California became intrigued by questions of perception. These artists often chose to play with light and its effects on reflective, translucent, or transparent materials, such as polyester resin, Plexiglas, Fiberglas, acrylic, and tinted glass. They are known for using color and light to investigate the nature of perception, the viewer's experience, and the relationship between the viewer and the art object. Artists presented works that stimulate a heightened sensory awareness in the viewer. These artists investigated light and space by experimenting with high-tech industrial materials and new technologies prevalent in Southern California in the 1960's and 1970's. The exhibition *Phenomenal: California Light, Space, Surface* was on view at the Museum of Contemporary Art San Diego from September 25, 2011-January 22, 2012 in La Jolla and remains on view through summer 2012 Downtown. It is a part of the Getty Foundation's Pacific Standard Time: Art in L.A. 1945-1980, in which more than 60 art institutions are jointly mounting exhibitions on postwar Southern California art. In these lessons, students will examine and discuss *Phenomenal: California Light, Space, Surface* and create their own works that experiment with color, light, materials, and their effects.

OBJECTIVES >

Students will be able to:

1. Define the following words: form, cast, transparent, translucent, opaque.
2. Identify and analyze an artwork's color, form, surface, and effects on its surroundings.
2. Analyze an artist's process, goals, and purposes.
3. Express their opinion of a work and defend their opinion.
4. Apply their knowledge by creating their own works that experiment with color, light, materials, and their effects.

VOCABULARY >

- Cast: to pour liquid plastic (or metal) into a mold to form it into a particular shape.
- Finish Fetish: A term critics apply to the work of West Coast artists working in the 60s who produced "attractive, cool, semi-technological, industrially produced art" with sleek and elegant surfaces."¹
- Form: a three-dimensional figure; the shape and structure of an object.
- Opaque: light does not pass through it.
- Translucent: light can pass through it, but you cannot see through it. Images and objects appear diffused.
- Transparent: easy to see through and transmitting light.



Craig Kauffman, *Untitled* (detail), 1968, synthetic polymer vacuum-formed Plexiglas with acrylic lacquer. 23 x 51 x 12 in. Collection Museum of Contemporary Art San Diego, Gift of Arthur and Carol Goldberg in honor of Margo Leavin. © Estate of Craig Kauffman. Photo: Philipp Scholz Rittermann.

PRE-PROJECT CLASS DISCUSSION >

Begin by showing works from *Phenomenal: California Light, Space, Surface*. Allow students up to one minute to observe carefully and quietly before beginning the conversation.

1. Visual Inquiry Questions: Exploring What You See

- Begin with a specific question about the students' first impressions of the work. For example, "What is the first thing you notice about this work?"
- Follow with formal qualities of the work such as composition, materials, scale, color, etc.: "What images, materials, symbols, or texts do you recognize?"
- Integrate factual information about process, composition, and materials with student responses. Follow up by asking "How do the work's materials or form suggest what the work might be about?"; "Why do you think the artist chose to use these images/materials/symbols/texts?"

2. Interpretive Inquiry Questions: Exploring Meaning

- Provide factual information about the work including title, date, and background information about the work. Allow students to consider and integrate the information you have shared: "How does this work relate to that concept?" Guide students to form their own interpretations and to support these interpretations with visual evidence: "What do you see that makes you say that?"
- Share a quote about the work. Ask students: "What does the artist or art critic mean when he/she says..."
- Share information on the artist's overall practice. Encourage students to make connections to the larger world and to other social contexts, and to connect ideas to the overall theme of the exhibition.



Craig Kauffman, *Untitled*, 1968, synthetic polymer vacuum-formed Plexiglas with acrylic lacquer. 23 x 51 x 12 in. Collection Museum of Contemporary Art San Diego, Gift of Arthur and Carol Goldberg in honor of Margo Leavin. © Estate of Craig Kauffman. Photo: Philipp Scholz Rittermann.



Peter Alexander, *Pink Wedge*, 1968. Cast resin, 6½ x 9 x 4½ in. Collection Museum of Contemporary Art San Diego, Gift of Daniel Weinberg, San Francisco, California. © Peter Alexander. Photo: Philipp Scholz Rittermann.



Helen Pashgian, *Untitled*, 1968–69. Cast polyester resin, 8 in. diameter. Collection Museum of Contemporary Art San Diego. Museum purchase, International and Contemporary Collectors funds. © Helen Pashgian. Photo: Philipp Scholz Rittermann.



Craig Kauffman, *Untitled*, 1968, synthetic polymer vacuum-formed Plexiglas with acrylic lacquer. 23 x 51 x 12 in. Collection Museum of Contemporary Art San Diego, Gift of Arthur and Carol Goldberg in honor of Margo Leavin. © Estate of Craig Kauffman. Photo: Philipp Scholz Rittermann.



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ARTIST INFORMATION >

Craig Kauffman (American, 1932-2010) grew up in the Eagle Rock suburb of Los Angeles. Kauffman is best known for his series of untitled “bubble” sculptures, which began in 1967 and combined subtle gradations of color with a wide spectrum of transparency, translucency, and reflectivity. The artist fabricated these works by building wooden molds and then assisting with their production at Planet Plastics in Paramount, California. The bubbles begin as clear plastic and are spray-painted from the back with 30 to 40 layers of pigments in pearlescent pastels, grays, and bright hues. Together the layers of colors create a delicately ethereal yet translucent appearance. Light reflects from the surface, but also passes through and integrates with the object. The hues of the pigments change with the viewer’s angle of sight, so that the plastic surface appears not hard but rather glowingly atmospheric. Kaufmann was interested in this fuzzy, imprecise effect and the possibilities of having the object dematerialize through color and lighting. The bubble works also reveal an exuberant, science fiction-oriented sense of humor. Kauffman describes a bubble sculpture as a “hover form which moves around [the] room and bumps into walls.”²

Peter Alexander (American, born 1939) was also a pioneer in creating light-responsive works. The medium that Alexander turned to was cast polyester resin, creating such pieces as *Pink Wedge* (1968). *Pink Wedge* is an intimate piece, something that could be handheld. Largely transparent, the work acts as a prism, reflecting its own edges to kaleidoscopic effect as one moves around it. From certain angles, a salmon-colored triangle appears suspended in the wedge. One critic of the time described the alchemical properties of Alexander’s resin pieces: “Despite the precise handling of these forms, the material appears here so sensuously romantic that they recall the luscious and Baroque Rubens more than mechanistic Newtonian physics.”³

Helen Pashgian (American, born 1934) perfected the casting of spheres in resin. Moving to Los Angeles in 1964 to work as a painter, Pashgian quickly embraced the use of acrylics to capture transparency in three-dimensional form. Pashgian works with resin to create discs, spheres, and flat works that convey a mysterious sense of depth. An untitled cast polyester resin sphere from 1968-69 reveals the subtle coloration and polished surfaces that she was able to achieve through experimentation, trial, and error. By inserting solid acrylic elements into her cast resin sculptures and using interlocking bands of color within simple geometric shapes such as spheres, Pashgian succeeded in suspending light and color within a form. While a pristine surface is an important component of these works, the surface itself is not Pashgian’s main focus. Along with her peers working in resin, Pashgian has been described as a “finish fetish” artist, a term she rejects. “The point is not finish at all, but to see through the work” she explained. [The term] ‘finish fetish’ makes us all sound vaguely pathological.”⁴ The effect for the viewer is one of instability; colors and shapes appear and disappear as one moves relative to the piece, and changes in ambient light neutralize dominant colors or render them as other hues entirely. Pashgian’s spheres can be powerful presences in a room, changing character completely depending upon available light and the viewer’s position in relation to the work.



Craig Kauffman, *Untitled*, 1968, synthetic polymer vacuum-formed Plexiglas with acrylic lacquer. 23 x 51 x 12 in. Collection Museum of Contemporary Art San Diego, Gift of Arthur and Carol Goldberg in honor of Margo Leavin. © Estate of Craig Kauffman. Photo: Philipp Scholz Rittermann.

SURFACE, LIGHT & INDUSTRY PROJECT > GRADES 9 -12

SUMMARY >

Using industrial materials, students will experiment with surface and light to create projects inspired by the works featured in *Phenomenal: California Light, Space, Surface*.

MATERIALS >

Visit your local hardware or home improvement store to purchase materials that encourage your students to experiment with surface and light. Suggested materials include 8 x 10 inch sheets of Plexiglas, house paint, reflective paint, paintbrushes, drywall tape, chrome duct tape, hot glue guns and hot glue, and sandpaper.



Peter Alexander, *Pink Wedge*, 1968. Cast resin, 6½ x 9 x 4½ in. Collection Museum of Contemporary Art San Diego, Gift of Daniel Weinberg, San Francisco, California. © Peter Alexander. Photo: Philipp Scholz Rittermann.

PROJECT PROCEDURE >

- The artists featured in *Phenomenal* used newly-developed industrial materials to create art and had to first gain an understanding of these materials through experimentation. To encourage this experimental spirit in your students, arrange the industrial materials across tables and allow your students to select materials for their projects.
- Before students select materials, describe each material and a few ways that it might be used. For example, share that sandpaper can be used to scratch and cloud the surface of the Plexiglas to make it less transparent.
- Although the artists featured in *Phenomenal* disagree about the application of the term “finish fetish” to their work, they did pay close attention to how an artwork interacted with, reflected, and transmitted light. Ask students to select materials and experiment with light, reflectivity, and surface to create a finished work.
- When finished, have students share what they learned about how the industrial materials worked as well as discuss their finished product with their peers.



Helen Pashgian, *Untitled*, 1968-69. Cast polyester resin, 8 in. diameter. Collection Museum of Contemporary Art San Diego. Museum purchase, International and Contemporary Collectors funds. © Helen Pashgian. Photo: Philipp Scholz Rittermann.

TIPS > Reflective glass beads are added to the surface of traffic paint to make highway lane dividers highly reflective. These “Reflective Glass Beads” or “Highway Safety Spheres” are inexpensive and can be ordered online.

TISSUE ON GLASS PROJECT > GRADES K-5

SUMMARY >

In this lesson, students will be asked to explore light and color and the quality of their materials, which include glass and colored tissue paper.

MATERIALS >

Wide paint brushes, paper towels, water bucket to clean brushes, glass jars, empty candle-holders, vases, soap, wax paper or newspaper to cover work surface, scissors, white glue, colored tissue paper, container for mixing glue & water.

PROJECT PROCEDURE >

- Wash the glass with soap and water and soak off any labels. Let dry.
- Pour white glue into empty container. Add water and mix until it reaches a milky consistency.
- Tear tissue paper into squares; do not cut with scissors. Crumple several torn pieces of tissue, then smooth them back out to create a wrinkled look. Use a wide brush to dab a bit of the glue mixture onto a small area of the glass. Carefully attach a piece of tissue onto the glass, keeping it wrinkled as much as possible, but not folded over onto itself. Once attached onto the glass, carefully use a paintbrush to dab glue mixture over all of the tissue, working out bubbles as needed. Repeat this process, overlapping tissue slightly until all of the glass is covered. Tear small pieces of tissue and carefully patch holes as needed. Let dry.
- When dry, the teacher may use a razor blade or craft knife to trim excess tissue from the top and bottom edges of the glass container.

POST-PROJECT REFLECTION >

As part of your lesson, allow for a 15 minute reflection. Pass out index cards and ask your students to write an object label, which includes a title, year, artist name, materials, dimensions, and a short description of the work. Ask students to get into small groups and describe the work to their classmates using the visual and interpretive inquiry methodologies used previously when looking at the *Phenomenal* artworks.

EXTENSION ACTIVITY >

Take a walk to explore your surroundings. Document your findings by using a camera or a journal. Look for transparent and translucent objects. What visual effects do these objects create? How do they affect their surroundings? What colors do they create? How does the object change as you move around it?

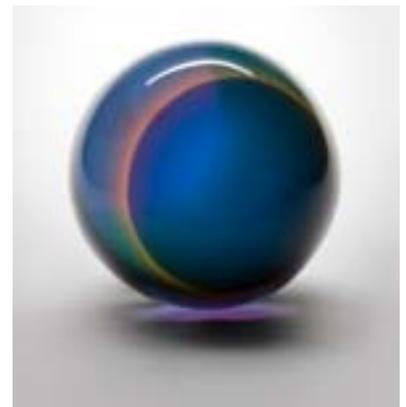
TIPS > To clean, wipe gently with a damp cloth. Do not let painted jars soak in water. Follow manufacturer's directions for all products used. Try textured paints.



Craig Kauffman, *Untitled*, 1968, synthetic polymer vacuum-formed Plexiglas with acrylic lacquer. 23 x 51 x 12 in. Collection Museum of Contemporary Art San Diego, Gift of Arthur and Carol Goldberg in honor of Margo Leavin. © Estate of Craig Kauffman. Photo: Philipp Scholz Rittermann.



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CALIFORNIA VISUAL ARTS CONTENT STANDARDS

KINDERGARTEN

- 1.3 Identify the elements of art (line, color, shape/form, texture, value, space) in the environment and in works of art, emphasizing line, color, and shape/form.
- 2.6 Use geometric shapes/forms (circle, triangle, square) in a work of art.
- 4.2 Describe what is seen (including both literal and expressive content) in selected works of art.
- 5.4 Discuss the various works of art (e.g., ceramics, paintings, sculpture) that artists create and the type of media used.

GRADE ONE

- 1.3 Identify the elements of art in objects in nature, in the environment, and in works of art, emphasizing line, color, shape/form, and texture.
- 2.4 Plan and use variations in line, shape/form, color, and texture to communicate ideas or feelings in works of art.
- 4.2 Identify and describe various reasons for making art.

GRADE TWO

- 1.3 Identify the elements of art in objects in nature, the environment, and works of art, emphasizing line, color, shape/form, texture, and space.
- 2.1 Demonstrate beginning skill in the use of basic tools and art-making processes, such as printing, crayon rubbings, collage, and stencils.
- 2.2 Demonstrate beginning skill in the use of art media, such as oil pastels, watercolors, and tempera.
- 3.1 Explain how artists use their work to share experiences or communicate ideas.
- 4.2 Compare different responses to the same work of art.
- 4.4 Use appropriate vocabulary of art to describe the successful use of an element of art in a work of art.
- 5.4 Discuss artists in the community who create different kinds of art (e.g., prints, ceramics, paintings, sculpture).

GRADE THREE

- 1.5 Identify and describe elements of art in works of art, emphasizing line, color, shape/form, texture, space, and value.
- 3.2 Identify artists from his or her own community, county, or state and discuss local or regional art traditions.
- 4.1 Compare and contrast selected works of art and describe them, using appropriate vocabulary of art.
- 4.3 Select an artist's work and, explain its successful compositional and communicative qualities using appropriate vocabulary of art.

GRADE FOUR

- 1.5 Describe and analyze the elements of art (e.g., color, shape/form, line, texture, space, value), emphasizing form, as they are used in works of art and found in the environment.
- 2.8 Use complementary colors in an original composition to show contrast and emphasis.
- 3.2 Identify and discuss the content of works of art in the past and present, focusing on the different cultures that have contributed to California's history and art heritage.
- 4.3 Discuss how the subject and selection of media relate to the meaning or purpose of a work of art.
- 5.4 Read biographies and stories about artists and summarize the readings in short reports, telling how the artists mirrored or

affected their time period or culture.

GRADE FIVE

- 1.1 Identify and describe the principles of design in visual compositions, emphasizing unity and harmony.
- 1.3 Use their knowledge of all the elements of art to describe similarities and differences in works of art and in the environment.
- 3.2 Identify and describe various fine, traditional, and folk arts from historical periods worldwide.
- 3.3 Identify and compare works of art from various regions of the United States.
- 4.1 Identify how selected principles of design are used in a work of art and how they affect personal responses to and evaluation of the work of art.
- 4.2 Compare the different purposes of a specific culture for creating art.
- 4.3 Develop and use specific criteria as individuals and in groups to assess works of art.

GRADE SIX

- 1.1 Identify and describe all the elements of art found in selected works of art (e.g., color, shape/form, line, texture, space, value).
- 1.2 Discuss works of art as to theme, genre, style, idea, and differences in media.
- 1.3 Describe how artists can show the same theme by using different media and styles.
- 2.4 Create increasingly complex original works of art reflecting personal choices and increased technical skill.
- 2.5 Select specific media and processes to express moods, feelings, themes, or ideas.
- 3.1 Research and discuss the role of the visual arts in selected periods of history, using a variety of resources (both print and electronic).
- 4.1 Construct and describe plausible interpretations of what they perceive in works of art.
- 4.2 Identify and describe ways in which their culture is being reflected in current works of art.
- 4.3 Develop specific criteria as individuals or in groups to assess and critique works of art.

GRADE SEVEN

- 1.1 Describe the environment and selected works of art, using the elements of art and the principles of design.
- 2.3 Develop skill in using mixed media while guided by a selected principle of design.
- 3.2 Compare and contrast works of art from various periods, styles, and cultures and explain how those works reflect the society in which they were made.
- 4.2 Analyze the form (how a work of art looks) and content (what a work of art communicates) of works of art.
- 4.3 Take an active part in a small-group discussion about the artistic value of specific works of art, with a wide range of the viewpoints of peers being considered.
- 4.4 Develop and apply specific and appropriate criteria individually or in groups to assess and critique works of art.

GRADE EIGHT

- 1.1 Use artistic terms when describing the intent and content of works of art.
- 3.2 Compare, contrast, and analyze styles of art from a variety of times and places in Western and non-Western cultures.
- 4.1 Define their own points of view and investigate the effects on their interpretation of art from cultures other than their own.
- 4.2 Develop a theory about the artist's intent in a series of works

of art, using reasoned statements to support personal opinions.

4.3 Construct an interpretation of a work of art based on the form and content of the work.

4.4 Develop and apply a set of criteria as individuals or in groups to assess and critique works of art.

4.5 Present a reasoned argument about the artistic value of a work of art and respond to the arguments put forward by others within a classroom setting.

RESOURCES

- Visual Arts Standards www.cde.ca.gov/be/st/ss/vamain.asp
- Museum of Contemporary Art San Diego www.mcasd.org
- Peter Alexander www.peteralexander.com

WORKS CITED

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Surface & Light Lesson Plan was developed by MCASD Education staff and Summer Intern Monica Garls.

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