

# What is Design?

Offered in conjunction with the exhibition

“Crafting Modernism: Midcentury American Art and Design”



Ariete (Harry) Bertoia, Designer  
Knoll International, Manufacturer  
"Bird" Lounge Chair and Ottoman, after 1952  
Private Collection



museum of arts and design

## WELCOME

Dear Educator,

We are delighted that you have scheduled a visit to *Crafting Modernism: Midcentury American Art and Design*. When you and your students visit the Museum of Arts and Design, you will be given an informative tour of the exhibition with a Museum educator, followed by an inspiring hands-on project, which students can then take home with them. We have written a larger resource packet for the exhibition, which includes art, craft and design from *Crafting Modernism*; in addition, we will provide a smaller packet that will help students understand the concept of design—in which we pose the question, "What is design?" To make your Museum experience more enriching and meaningful, we strongly encourage you to use this packet as well as the larger packet as resources, and work with your students in the classroom before and after your Museum visit.

This packet includes only pictures of chairs from the exhibition and topics for discussion and activities intended to introduce the theme of design. Additionally, we have suggested a few art project ideas so that you can further explore the meaning of design.

Please feel free to adapt and build on these materials and to use this packet in any way that you wish.

We look forward to welcoming you and your students to the Museum of Arts and Design.

Sincerely,

Cathleen Lewis  
Manager of School, Youth and Family Programs  
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Lessons written by Petra Pankow, Museum Educator in collaboration with the Museum of Arts and Design Education Department.

# WHAT IS DESIGN?

- What is design?
- What is a designer?

Ask your students what comes to mind when they hear these two terms. Ask them to think about examples for how these terms might be used in the context of a sentence:

*I love the design on this scarf!*

*Ralph Lauren is a fashion designer.*

*The layout of this park was designed by a landscaper.*

*The museum's education programs are designed to promote creativity.*

Based on these examples, what meanings/definitions of design emerge?  
(Design has something to do with making, with planning, with decoration. It might involve the creation of everyday objects, the way they look and the way they work).

## FORM AND FUNCTION

Design is a process of problem solving that looks for elegant solutions to the question "How do I...". A good design is often considered one that combines a pleasing appearance (**form**) with user-friendliness and practicality (**function**).

**Industrial or Product Design** deals with the development of usable objects (ranging from thumb tacks to iPods). They develop products the best of which end up being mass-produced in factories and sold to large numbers of people.

Here are some of the factors they might consider in order to make their design as appealing as possible. A well-designed product should be (ideally):

- aesthetically pleasing
- functional
- accessible
- well-made
- sustainably produced
- socially beneficial
- ergonomic
- affordable
- enduring

## THE ELEMENTS OF DESIGN

Artists and designers use a range of elements to shape the look of their designs. When looking at works in a museum, they often offer great tools for analyzing what we see:

**Line** is used by artists to define shape, contours, and outlines or to suggest mass and volume. It may be a continuous mark made on a surface with a pointed tool or implied by the edges of shapes and forms. Lines may vary in

- width (thick, thin, tapering, uneven)
- length (long, short, continuous, broken)
- direction (horizontal, vertical, diagonal, curving, perpendicular, parallel, zigzag)
- focus (sharp, blurry, fuzzy, choppy)
- feeling (sharp, jagged, graceful, smooth)

**Color** is an important element of art and design and might be used by the artist to create a certain mood (consider warm and cold colors, etc.) and to play them out alongside or against each other by matching and contrasting them (take a look at a color wheel to learn about primary, secondary, and complementary colors).

**Shape** When a line crosses itself or intersects with other lines to enclose a space it creates a shape. Shapes are two-dimensional and are often divided into geometric shapes (circles, squares, rectangles and triangles) and organic shapes (free-flowing and irregular, often found in nature, e.g. leaves, seashells, etc.).

**Form** is a 3-dimensional object having volume and thickness, which can be seen from many angles. It can also be implied in a 2-dimensional work by using shading techniques.

**Space** is defined and determined by shapes and forms. *Positive space* is where shapes and forms exist; *negative space* is the empty space around shapes and forms.

**Texture** is the surface quality of an object (rough, jagged, soft, smooth, furry, etc.) We can distinguish between real texture, which is the actual texture of an object and implied texture, like a drawing of a tree trunk, which may look rough but in fact it is just a smooth piece of paper. Artist may create real texture in art to make it visually interesting or to evoke a feeling. A piece of pottery may have a rough texture so that it will look like it came from nature or a smooth texture to give it a machine-made look.

## THE PRINCIPLES OF DESIGN

Artists and designers combine the various elements of design in order to:

- Create a sense of **balance**.
- Establish **emphasis**.
- Create a sense of **movement**.
- Make a pattern or otherwise use **repetition**.
- Instill their design with **rhythm**.
- Create **contrast**.
- Establish **unity**.

### Further Reading:

<http://www.nytimes.com/2008/06/09/arts/09iht-design9.1.13525567.html>

<http://www.metropolismag.com/story/20090318/a-good-argument>

<http://journal.drawar.com/d/what-is-design/>

<http://www.princetonol.com/groups/iad/Files/elements2.htm>

<http://www.princetonol.com/groups/iad/Files/elements.htm>

### **Activity:**

Use the following link to search the collection of the Museum of Arts and Design. By typing “chair” into the search field, you can call up a list of all the chairs, both functional and not, owned by the museum. Pick one and discuss it with your students by asking them about form (design elements and principles) and function and have them think about materials and processes used in the making of the chair:

<http://collections.madmuseum.org/code/emuseum.asp>

# 1. Pre-Visit Activity

*Every truly original idea – every innovation in design, any new application of materials, every technical invention for furniture – seems to find its most important expression in a chair.*

George Nelson<sup>1</sup>

## OBJECTIVES:

- Students will be introduced to the idea of design as problem-solving.
- Students will think about everyday objects (chairs) as results of a design process.
- Students will start thinking about form and function in design through the lens of their own everyday experience.

## VOCABULARY:

Design  
Problem-solving  
Process  
Form  
Function  
Solution  
Hand-made  
Mass-Production

## ACTIVITY:

**1. Start a conversation** about chairs by asking students where, in the course of a normal day, they encounter chairs. Encourage them to think of as many different situations, rooms and environments as possible).

- What do we use chairs for? (sitting, lounging, resting, waiting, working, watching, reading, rocking, napping)
- What special functions might they have (elevating (highchairs, life-guard chairs), collapsible/folding, upholstered, reclining, swiveling, stackable, washable, child-size, etc.)
- What materials are used to make chairs?
- How are they made? (by hand, through industrial processes)

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<sup>1</sup> George Nelson, *Chairs*. New York, 1953, p. 9.

- Take a look at your classroom chair: What colors/materials and other formal qualities do you notice? What is/are its function/s? How does the form (design/look) contribute to this function?

**2. Form groups** of 3-4 students each. Each group designates one student to interview the other group members about their satisfaction with or criticisms about their classroom chair? Does it work well? Is it comfortable? Do you like the way it looks?

As a group, think about possible ways in which you could improve the chair and make a list. After the interviews, each group shares their findings with the whole class.

## 2. Four Chairs

Use the following close-looking exercises to introduce your students to some of the elements and principles of design and to important design ideas like form and function.

The questions can easily be modified depending on your students' grade level and interests and could be adapted to images of other chairs, whether real ones in your school or historical or contemporary works that can be found in magazines, books, or museums.

Compare and contrast two or more of the featured works (or those you are using to complement your lesson) in order to alert students to similarities and differences, as well as shared themes and basic ideas.



Sam Maloof  
*Rocking Chair*, 1957  
Walnut and upholstery fabric  
45. x 27. x 42 in. (116.2 x 69.9 x 106.7 cm)  
Museum of Arts and Design, Gift of the artist

*Good furniture must convey a feeling of function  
but also must be appealing to the eye.<sup>2</sup>*

Sam Maloof

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<sup>2</sup><http://www.americanart.si.edu/maloof/design/design2.html>

## LOOK:

- Describe this chair in as much detail as possible, noting its color, shape, materials, etc.
- Imagine walking up to and sitting down on it. Describe what this experience would be like.
- How would your body respond to the different components of the chair (armrest, seat, back)? Why?
- How do you think this chair was made? What parts of it give you clues about the designer's process?
- What is this chair's intended function?
- What in the design supports this function?
- Do you think that the saying "form follows function" (which means that the purpose of the chair dictates the way it looks) applies to this design?

## THINK ABOUT:

American woodworker Sam Maloof (1916-2009) was the embodiment of a craftsman designer. Self-taught, he was passionate about creating every one of his works by hand. The way his furniture worked often grew directly out of the process of making it: "I aim for a rocker that doesn't throw you back or tip you out,"<sup>3</sup> he said once and described that it was impossible to capture the many details that go into a design in a working drawing but that solutions to particular problems emerged as he went along: "Many times I do not know how a certain area is to be done until I start working with a chisel, rasp, or whatever tool is needed for that particular job."<sup>4</sup>

- Can you imagine some of the problems that might emerge when crafting an object like Maloof's Rocker?
- How might these problems be solved in the process of making?

## DISCUSS:

Although furniture manufacturers approached Maloof with offers to buy the rights for his designs, the artist resisted the idea of having any of his designs mass-produced but rather he choose to handcraft every work in his shop with the help of a small group of master woodworkers. He said: "It is amazing how one chair begets many. But each chair is designed individually. It is a living thing."<sup>5</sup>

- Do you feel that "Rocking Chair" comes across as a "living thing"? Please explain.
- In what ways would you feel different about the chair if you knew that it was mass-produced?
- Do you think it matters how a product was made? Why? Why not?

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<sup>3</sup><http://www.americanart.si.edu/maloof/design/design5.html>

<sup>4</sup><http://www.americanart.si.edu/exhibitions/online/maloof/design/index.html>

<sup>5</sup><http://www.americanart.si.edu/maloof/design/design4.html>



Charles and Ray Eames, designers  
Herman Miller Furniture Company, manufacturer  
*Lounge Chair and Ottoman*, designed 1956  
Rosewood, leather, and aluminum  
Chair: 33. x 33 x 32 in. (85.1 x 83.8 x 81.3 cm)  
Ottoman: 16. x 26 x 21 in. (41.9 x 66 x 53.3 cm)  
Philadelphia Museum of Art, Purchased with funds contributed by Mr. and Mrs. Adolph G. Rosengarten Jr., in memory of Calvin Hathaway, 1976

*Sometimes a chair is just a chair. But sometimes it is more: a luxury item, a symbol of authority, a refuge for mind and body, a design landmark. The Eames lounge chair — the spacious black leather and molded rosewood chair, with ottoman, that the designers Charles Eames and his wife, Ray, unveiled on national television in 1956 — is all of the above.*<sup>6</sup>

Roberta Smith, *New York Times*

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<sup>6</sup> [http://www.nytimes.com/2006/05/26/arts/design/26eame.html?\\_r=1](http://www.nytimes.com/2006/05/26/arts/design/26eame.html?_r=1)

## LOOK:

- Study the design of this chair by considering each of its components, systematically, from top to bottom.
- What materials do you notice?
- What colors do you see?
- How were the different components put together?
- What are the various functions of these components? Imagine sitting down in this chair. Where would you put your legs, arms, and head?
- Do you think some parts of the chair are movable? Please explain.
- In what way do the visual appearance of the chair (form) and its purpose as a practical object (function) come together in its design?

## THINK ABOUT:

This “Lounge Chair and Ottoman”, is an icon of midcentury design, which was first handcrafted by design legends Ray and Charles Eames for their friend, the movie director Billy Wilder. Later, it was mass-produced by furniture manufacturer Herman Miller. In fact, it is still in production today. An early advertising campaign for the chair depicted in a number of different settings: in the middle of a hayfield, in a Victorian parlor, and on a farmhouse porch, occupied by a grandmother shelling peas.

- What do you think was the intended message of this advertisement?
- Where in your house would you place a chair like this? Why?
- What would you do while sitting on it?
- Imagine you were marketing this chair. What might be a slogan or catchy title you would come up with to persuade people to buy it? Describe the photo that would accompany your text.

## COMPARE:

- What similarities and differences do you notice between Maloof’s “Rocking Chair” and the Eames “Lounge Chair”?
- Do you think the fact that one is handmade and the other mass-produced is apparent? In your opinion, does it matter how each of these chairs was made? Why? Why not?
- If you could pick one of the two, which one would you choose? Please explain your choice.



Jack Rogers Hopkins  
*Edition Chair*, 1970  
Finnish plywood  
28 x 54 x 28 in. (71.1 x 137.2 x 71.1 cm)  
Collection of Ann Hopkins Begley

*Hopkins executed his designs in hardwoods—walnut, cherry, mahogany, maple, and rosewood— without assistants. He always carried a sketchbook that included planned works and philosophical thoughts inspired by forms in nature such as driftwood and dried bones<sup>7</sup>.*

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<sup>7</sup> Jeannine Falino, ed., *Crafting Modernism: Midcentury American Art and Design* (exh. cat.) New York, 2011.

## LOOK:

- Describe this chair in terms of the elements of design: What do you notice about the use of line?
- How would you describe its color?
- What is the chair's shape like?
- What can you tell about the texture of the work?
- In what way does the concept of space matter in the context of this chair?

Now focus on how the artist organized the individual elements of his work by engaging a number of design principles:

- Does the artist establish a sense of balance? How?
- Where in the work is repetition used as design principle?
- Do you find that certain parts of the chair are emphasized over others? Please explain.
- How does the artist establish unity?
- What role does the idea of rhythm or movement play in the work?
- What materials were used to make this chair?
- What do you think the process of making it was like?

## THINK ABOUT:

Jack Rogers Hopkins was a leading figure of the California design scene during the late 1960s, as American furniture everywhere was becoming more sculptural and free-form. He became very interested in working with plywood, which *Popular Science* magazine described as a “layercake of lumber and glue”<sup>8</sup> in 1948 and which had been embraced by furniture manufacturers because the flexibility and lightness of the material that was extremely well-suited for mass-production. Hopkins combined the process with the skill of the craftsman, which he brought to every one of his handmade pieces.

- What tools might Hopkins have used to make this work?
- What processes were involved in making this chair?

## DISCUSS:

- In what way does this “chair” remind you of other chairs in your everyday environment?
- What is unusual about it?
- Does it remind you of anything other than a chair? Please explain.
- What do you think it would feel like to sit in this chair?
- Could you use it for any other activity than sitting? Please explain.

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<sup>8</sup><http://moma.org/visit/calendar/exhibitions/1132>



J. B. Blunk  
*Scrap Chair*, 1968  
Cypress  
39. x 49. x 26 in. (100.3 x 125.1 x 66 cm)  
Courtesy of the J.B. Blunk Estate

*I began making wood sculpture in 1962. I knew how to use a chain saw and it was one of those things. One day you just start.*J.B. Blunk

## LOOK:

- Describe this chair by considering the elements of design: what do you notice about the artist's use of
  - Color
  - Shape
  - Line
  - Texture
  - Space?
- What materials were used to make this work?
- Where do you think the artist found them?
- What tools did the artist use to make it?
- In what way does the artist combine or compose its various components?
- Imagine moving this chair from one room into another? What would the experience be like?
- On a scale from 1 (not at all) to 10 (very), rate how comfortable you think it would be?
- What enables us to identify this work as a chair?

## THINK ABOUT:

J.B. Blunk has been described as a “master of the chain saw.”<sup>9</sup> Using massive redwood trunks and other enormous pieces of wood, he created distinctive furniture, sculptures, and installations. He was inspired by the countercultural mood that governed his native California at the time that led many artists to use unusual materials and processes to make their art.

- Come up with a title for this work.
- The artist called the work “scrap chair.” Can you see why?
- How does the fact that the artist used wood scraps change your perspective on this chair?

## DISCUSS:

- Consider the following quote from J.B. Blunk and discuss its importance for “Scrap Chair”.

“My way of working, the core of all my sculpture, is a theme, the soul of the piece. Sometimes it is evoked by the material, sometimes it is an idea or concept in my own mind. It is always present, regardless of the material, size or scale of what will be the finished piece. On occasions, when I work with found objects, the object itself, evokes a theme. In these cases, I do very little to change it. One could say the theme is recognized.”<sup>10</sup>

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<sup>9</sup><http://jbblunk.com/home>

<sup>10</sup><http://jbblunk.com/work>

# 3. The Ultimate Classroom Chair

## OBJECTIVES:

- To understand that there is more than one way to design an everyday object.
- To understand that the success of a design rests on both how well it functions and how appealing it is visually.
- To understand that some designers re-use/re-combine/re-design existing objects.
- To be able to imagine a new classroom chair design by producing a drawing, a written description, and a prototype.

## MATERIALS:

- Paper
- Pencils
- Colored pencils, crayons, or markers
- Various materials for creating a prototype, such as cardboard, air-dry clay, wood, fabric scraps, straws
- Scissors
- Tape
- Glue

## VOCABULARY:

- Scale
- Function
- Diagram
- Model
- Design
- Re-design
- Re-use
- Re-combine
- Mass-produced
- Prototype

## ACTIVITY:

**1. Lead a discussion** about the chairs in your classroom. Notice the design of your chair – the shape, the materials it is made out of, the size (scale), the color, how well it does or doesn't function.

- Why do schools have chairs?
- What do you use your chair for?
- What do you like about your chair?
- What don't you like about your chair?
- Have you ever had a classroom or desk chair that was designed differently?

- Did it work better or worse than this chair and why?

**2. Design challenge:** How could you re-design your classroom chair to create the ultimate classroom chair?

As a group, write a list of the characteristics of the ultimate classroom chair. Think size, shape, color, materials, use of interior and exterior space, and the possibility of personalizing.

- How could you change your chair to make it the ultimate chair? Think about adding to or subtracting from your chair, or even cutting and re-arranging parts.
- Think about how to make your chair more useful and/or playful.
- Would you want a storage compartment?
- Would you want to attach your desk/writing surface to your chair?
- Think of some of the elements (line, color, texture, shape, etc.) of design and think about how they can be incorporated in your design.
- Think of your chair in terms of the principles of design: is there a sense of unity in your design? Does it achieve a sense of balance and/or harmony?
- What are some other things that would make your chair more practical/beautiful? Be imaginative.

Individually or as small teams, create a color drawing (diagram) with a written description of your ultimate chair. Then create a model or “prototype” that renders the chair in three dimensions.

3. Each team will present their chair design. With the entire class, discuss the following:

- Which design changed your current chair design the most?
- Which design changed it the least?
- Which design is the most practical?
- Which design is the most playful?
- What is the relationship between form and function in each design?
- If you could choose one of your classmate’s designs to be mass-produced, which one would you choose? Why?

## **EXTENSIONS:**

- Students try to incorporate some of their design ideas by changing and personalizing their own desk, using colored paper, cardboard, boxes, tubes, etc.
- Design the ultimate teacher’s desk.
- Design a school desk to complement your chair.

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