

simply droog

10 + 3 years of creating innovation and discussion

Museum of Arts and Design
September 21, 2006 – January 14, 2007



Teacher
Resource
Packet



FIRST REPUBLIC BANK

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Since First Republic's inception, community involvement focusing on children and education has been a cornerstone of their mission. In addition to financing the construction or renovation of more than ten primary and secondary schools, the Bank provides scholarships through the First Republic Scholars Program and has helped establish The BASIC Fund, a highly successful scholarship fund for children of low-income families.

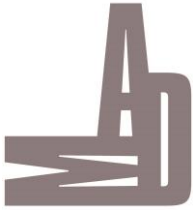
Our commitment to education now also extends beyond educating children directly.

As a sponsor of the *The Crafted Classroom* at the Museum of Arts & Design, First Republic is helping to provide skills, resources and information to New York City schoolteachers so that they are better equipped to educate students in the arts.

Teachers,

It is our hope that *The Crafted Classroom*, the Museum's teacher training institute, gives you the necessary knowledge to integrate craft, art and design into your daily classroom instruction; provides you with core arts-in-education curricula; and gives you valuable opportunities to network with your peers.

We know that you will take the resources provided by this unique and inspiring program back to your classrooms, encouraging new perspectives and potential through the use of contemporary craft and decorative arts in the general curriculum.



Museum of Arts & Design

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Dear Educator,

We are delighted that you have scheduled a visit to ***simply droog: 10 + 3 years of creating innovation and discussion***. 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. To make your museum experience more enriching and meaningful, we strongly encourage you to use this packet as a resource and work with your students in the classroom before and after your museum visit.

This packet includes topics for discussion and activities intended to introduce the key themes and concepts of the exhibition. Writing, storytelling and art projects have been suggested so that you can explore ideas about the exhibition in ways that relate directly to students' lives and experiences. 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,

Aliza Boyer
*Senior Manager of
School, Youth &
Family Programs*

Lisa Litwin
*Education Department
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Zachary Davis,
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MAD Artist Educators

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Museum of Arts & Design

The Museum of Arts and Design has been functioning as an international resource center for craft, arts and design since 1956. Through its collections, exhibitions, programs and publications, the Museum serves as a forum for critical debate concerning the nature of craftsmanship and the engagement with the process that links materials, techniques, forms, patterns and concepts in all creative works.

How does a museum work?

- **Administration:** The team led by the Director of the Museum determines the programs, plans and philosophy of the Museum. It also raises funds to realize the Museum's goals and works directly with the Board of Governors, which guides the Museum's functions.
- **Education:** This team provides the interactive interpretation of the objects on view through the educational programs designed for children, adults and families who visit the Museum. This team also creates and disperses written educational materials on current and upcoming exhibitions and provides tours for diverse audiences.
- **Curatorial:** This is the team, led by the Chief Curator, that works together to decide which exhibits will be shown, how they will look, what artwork is to be included, and how they are to be interpreted.
- **Registration:** Led by the Registrar, this team arranges the safe handling of art to be placed in an exhibition and maintains the permanent collections acquired by a museum.
- **Development:** This team collects the financial resources for the Museum from independent donors, foundations and corporations.
- **Public Relations/Marketing:** This team publicizes the Museum's exhibitions and programming with advertisements and media exposure.
- **The Store/Retail:** This team is responsible for maintaining, protecting and selling the merchandise in the Museum's store.
- **Facility Maintenance:** This is the team that allows the day-to-day operations of a museum to continue: from the lights being turned on, to the safety of all who enter the building.
- **Security Guards:** This is the team most often seen in a museum, because its main task is to protect the artwork from harm so that in the future people will be able to see the same objects as seen in a museum today. They also are helpful to visitors who have a variety of questions.

Museums are places where we can learn about the past, present, and future of the world around us. The diversity of knowledge is endless when the habit of museum exploration is formed at an early age. We look forward to welcoming your group into our galleries.

Helpful Hints for your Museum Visit

While visiting the exhibition try to use all your senses. Notice the way the pieces are displayed. *Are there any specific groupings of pieces you can distinguish? If you enjoy looking at one piece more than others can you explain why?*

Here are some questions and suggestions to think about as you move around the exhibition:

- I. *What can be objectively observed?*
 - a. What is the physical description? Measurement, weight, materials used, articulation of materials...
 - b. What iconography, if any, is used? Designs, words, diagrams...
 - c. What are the object's formal design characteristics? Lines, shapes, forms, color, texture...

- II. *What would it be like to interact with this piece of art? How would you handle, lift, display it?*
 - a. How would the piece of art feel, move, and sound?
 - b. What does the piece do? Does the piece have a function? How would the figures move if they were alive?
 - c. What is our emotional response to this beaded figure? Fear, joy, indifference, curiosity, revulsion, excitement...

- III. *What is in the mind of the artist? What are the viewers thinking and feeling? Use creative imagining and free association.*
 - a. Review all of the above information and consider what was going on in the world when the work was produced to develop possible interpretations of the piece. (i.e. theories and hypotheses)
 - b. *Do the figures tell a story? Does the piece have underlying political or social meaning?* (i.e. understanding and visual thinking)
 - c. Develop a program to investigate the questions posed by the material evidence. (i.e. researching)

"I try, when I go to museums, to do two things. One, to appreciate what I'm looking at, just to see it, but then to isolate a few pieces that I really look at in detail. I study and I draw not with any purpose in mind. I mean, I don't go looking for specific things. I just try to be open-minded and keep my eyes open. It's interesting that

every time I go back to the same place, I see something different." Arline M. Fisch
(1931-) Brooklyn, New York

**simply droog:
10 + 3 years of creating
innovation and discussion**

September 21, 2006 – January 14, 2007

Droog Design, a design collective set up in 1993, incorporates the work of an international cadre of contemporary designers working with low-cost industrial or recycled materials. In Dutch, droog means "dry" (as in "dry wit"), and unadorned or simple. The Droog Design collection is now a broad assembly of international designs that are plain and practical, including more than 150 diverse objects whose only criteria is that they must be informed by cultural developments and by the designer's intuition.

Droog is not a style. It is a brand and a mentality, a curatorial collection of exclusive products, a congenial pool of designers, a distributed statement about design as cultural commentary, a medium, working with cutting edge designers and enlightened clients. Organized by Droog, this exhibition reveals the humor, soul, meaning and content of this group of innovative designers.

The Netherlands



The Netherlands is a small country in Northwest Europe that borders Belgium and Germany and is surrounded on the north and west by the North Sea. Its name describes its geography, the Netherlands means “low lands.” Actually two-thirds of the land was once covered by water - by the sea, lakes or swamps. Over hundreds of years, the Dutch have created dry land by pumping out water and creating a network of dikes and canals, which help keep the land drained. However, it is a long and continuous battle against flooding by the sea.

Over the years, the Netherlands have been ruled at times by Romans, Franks, Spanish and French. It has been an independent country since 1830. But the “Golden Age” for the Dutch was the 1600’s. During this century they were a major sea power and had a large colonial empire, including what we now know as Indonesia. The Dutch were also the first Europeans to live on Manhattan Island in 1613. They founded and ruled the settlement of New Amsterdam (now New York City) until they gave it to England as part of a peace treaty in 1674.

During this same era, Dutch artists flourished. With no royal court, merchants and traders became the patrons of the arts. This led to a new phase in European art where artists created small paintings for individual homes (as opposed to large and often religious paintings for churches or castles). These small paintings often depicted interior scenes of ordinary people, places and things. The two most famous Dutch artists of this period are Rembrandt van Rijn and Johannes Vermeer.

Other well-known Dutch artists are Vincent van Gogh, Piet Mondrian and M.C. Escher. The American artist, Willem de Kooning was born and raised in the Netherlands and received his art training in Rotterdam (see map). Also, the Netherlands is famous for its blue and white Delftware pottery.

In more recent history, the Netherlands was considered a politically neutral country up until World War II when it was invaded and occupied by German forces. One moving account from this time is Anne Frank's *Diary of a Young Girl* detailing her family's hideout from the Nazis in a miniscule Amsterdam apartment. The Dutch city The Hague is now home to the International Criminal Court and the International Court of Justice.

Today the Netherlands is one of the most densely populated countries in the world, with few large urban centers. With limited land, Dutch society has grown to be very organized, with many rules and regulations in place to keep things running smoothly. Dutch culture is known to prize simplicity, bluntness, neatness, sensibility and personal privacy, while frowning on extravagance, ornamentation and obvious displays of wealth. The Netherlands, and particularly the capital Amsterdam, is also known for social tolerance and liberalism.

The Netherlands is well-known for its flower festivals and horticulture business, particularly displaying and trading in tulips. Other popular images associated with the Dutch are windmills and clogs (wooden shoes), which traditionally held up better against the damp earth than leather shoes. For being so densely populated and urbanized, the Dutch love outside recreation including biking, sailing, swimming, ice skating and gardening.

Pre-Visit Classroom Activities

Pre-Visit Activity 1

Objectives:

- a) Introduce students to the field of industrial design as a career and a field of art. Students will understand that designers are artists who plan manufactured products.
- b) Identify examples of industrial design.
- c) Create a drawing for a new product.

Vocabulary:

- Designer
- Industrial design
- Mass production
- Manufacture
- Industrial materials

Materials:

- Scratch paper
- Drawing paper
- Pencils
- Erasers
- Markers
- Colored pencils
- Construction paper

Activity:

Part One

- Gather examples of manufactured products (stapler, lamp, paper clip, chair, etc.), examples of fine art reproductions and/or pictures of natural objects (pine cones, rocks, leaf, flower, etc) for discussion. Have enough examples so that each person gets one. Real objects are preferable but magazine or photocopies might be more practical.
- Arrange the classroom to create a discussion area that will work for your group to provide maximum participation and ability to see visuals.

Part Two

- Ask your students about objects around the classroom. Have them think about how these objects were made. Discuss who made them, and why? Also introduce the idea that some objects are made in factories, mass-produced and that some objects are made by individuals or by-hand. How do you tell the difference between a handmade object and a manufactured object?
- Hand each student an object from Part One. Have the student decide if the object is made in a factory, by nature or by hand. How did they come to that conclusion?
- Next ask your students how they think factory-made things are created. Who thinks up the ideas? Who decides how things look and work? Introduce the

idea of the industrial designer--an artist who makes factory-made objects look good (form) and work well (function). Industrial designers make decisions about how an object will work, look and feel before it is manufactured. In order to plan products, industrial designer do a lot of brainstorming and research and create a lot of drawings and models.

- Next, take the mass-produced products you have collected and have the students discuss and identify traits the industrial designer had to think about when in the process of design (i.e. color, shape, texture, how it works, safety features, material it is made of, etc.). Continue this until the class has mastered the idea of with what and how an industrial designer works.

Part Three

- Another job of the industrial designer is to design what *future* products will look like. Have the students focus on the latest products they have seen or heard about. Focus their attention to one specific object. (This can relate to something the class is currently studying or to something they use everyday in the classroom like a pencil or desk.)
- Have your students function as industrial designers by designing a future product. For example, if discussing pencils, have them come up with a future design for a kind of writing utensil.
- Hand out drawing paper to the class. Explain to them that designers often draw their ideas on paper first. Have the students draw 3 sketches of their new design.

Part Four

Gather the students again into a discussion group. Have them explain their own designs and what they can be used for. Have students talk about the choices they made such as color, texture, etc. and respond to and ask questions about their classmates' work.

Pre-Visit Activity 2

Objectives:

- a) Introduce the process of design
- b) Identify areas where problems need solutions
- c) Change or make improvements on existing objects

Materials:

- Scratch paper
- Pencils
- Erasers
- Markers
- Colored pencils
- Construction paper
- Magazines
- Glue

Vocabulary:

- Design
- Problem
- Solution
- Innovation
- Environment
- Function
- Prototype
- Improvement

Activity:

Part One

- Begin by introducing a '**problem.**' Provide students with some examples of possible problems: The handle of a pot gets too hot to hold when the pot is heated; the seat of a chair is too hard; the room is not bright enough, etc. Ask students to begin to identify problems by writing them out on paper. Follow up by asking them to share some of these problems. Be sure to emphasize the idea that basic elements such as shape and color can all be part of the problem or the **solution.**
- Allow students the opportunity to pick one problem and attempt to design a solution (This should only be a few short sentences). Students should then share their solutions as a group.

Part Two

- Take students to an outdoor area where there is no apparent seating. Ask the students to take a seat. A problem should immediately be identified. There is nothing to sit on.

- On scratch paper have students jot down written observations and sketches of possible objects within the environment that could be used as chairs. Open a discussion about the possibilities.
 - How can a tree stump or branch **function** as a chair?
 - Is it possible for a pile of leaves to function as padding?
 - What are some possible combinations of objects observed that could be used to create a seating place?
 - (Further questions will depend on selected **environment**)

Part Three

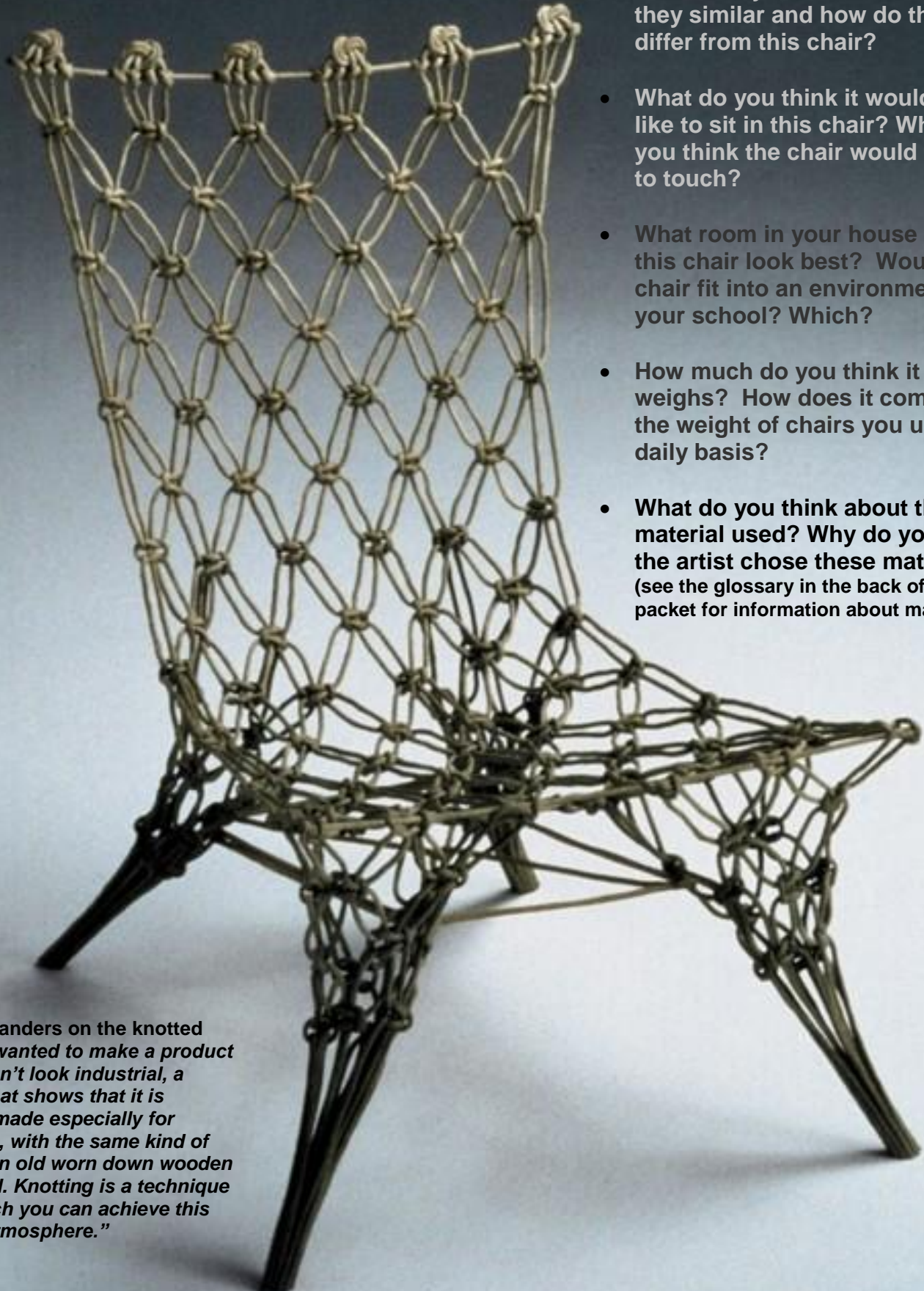
- Hand out a magazine to each student. Instruct the student to find three pictures of objects that are **functional**. Students should then receive a piece of construction paper. With scissors, have students cut out the objects and compose a collage on construction paper, which combines the images into an invented object or **prototype**. Each student should then write a description of their invention.
- Ask students to observe their invented functional objects and identify three possible problems. Have students indicate improvements with markers, which can be done directly on their collage.

Part Four

Gather Students into a discussion group. Have students explain their objects and point out the problems they encountered and notated on their composition. Encourage students to offer additional solutions to the objects being presented.

Featured Works

Marcel Wanders, *Knotted Chair*, 1996
Carbon and aramid fibers, epoxy resin
50 x 60 x 100 cm



- What do you use a chair for?
- What are the chairs like in your home? In your school? How are they similar and how do they differ from this chair?
- What do you think it would be like to sit in this chair? What do you think the chair would feel like to touch?
- What room in your house would this chair look best? Would this chair fit into an environment in your school? Which?
- How much do you think it weighs? How does it compare to the weight of chairs you use on a daily basis?
- What do you think about the material used? Why do you think the artist chose these materials? (see the glossary in the back of this packet for information about materials)

Marcel Wanders on the knotted chair: *"I wanted to make a product that doesn't look industrial, a design that shows that it is lovingly made especially for someone, with the same kind of aura as an old worn down wooden cupboard. Knotting is a technique with which you can achieve this artisan atmosphere."*

- What is this object? What do we use it for? What is made out of?
- What are rags used for? Can a chair be a rag? Would you wipe your dirty hands on the living room furniture?
- Does this chair bring certain smells to mind? Are rags associated with certain smells? What about all your other senses?
- Think about the chairs in your home and school. How is this chair similar? How does it differ?
- What kind of room would this chair be best suited?
- What do you think this chair would feel like to sit in?
- Can you think of other recycled materials you could use to create a chair? How do you think other materials would feel like to sit in?
- Why would the artist choose to make this type of chair? What does it say about our society? What does it say about the person who owns this?



**Tejo Remy,
Rag Chair, 1991
Rags, steel strips
60 x 60 x 110 cm**

- What is a drawer? What is a chest of drawers?
- What types of drawers do you have in your home? In your classroom? Where are they found? How are they the same? How do they differ?
- What place in your house would you put this piece?
- How would you use these particular drawers?
- How does the design of this piece change as the types of drawers change?
- How would you design your own "Chest of Drawers"?

- From where would you get your drawers?
- How would you remember what you put in each drawer?
- What would be an essential component in your own chest of drawers?



Tejo Remy,
Chest of Drawers,
 1991
 Used drawers, maple
 60 x 110 x 120 cm

Rody Graumans
Chandelier '85 lamps', 1993
85 bulbs 15 W,
standard fitting, dimmer
60 x 100 cm



- What are the main components of a light or lamp?
- What kinds of lights do you have in your classroom?
- What kinds of lights do you have in your home?
- How is '85 Lamps' similar or different than lights you have seen?
- How do you think the artist made this?
- Name any images, ideas, memories, associations that come to mind when you look at '85 Lamps.' Why do you think the artist used so many light bulbs?
- If you had 85 light bulbs, how would you put them together?
- Where would you hang a light fixture like this?

- What is the function of a bench? What is the function of *this* bench?
- What do you think about this statement made by the artist: “Why design a wooden chair when it is just as easy to sit on a log?”
- Where do you typically find benches?
- What type of environment would this bench be best suited? Why?
- What are benches typically made out of? What is *this* bench made out of?
- How do you think it would feel to sit on this bench? Would your comfort level change by sitting against one of the chair backs?
- How does it differ?
- How do you think the artist made this? What materials were used? Why do you think the artist used these materials?
- Why do you think the artist left the texture of the log rough?
- How would you arrange the chair backs for your very own *Treetrunk Bench*?
- Why did you choose your arrangement? Why do you think the designer chose this arrangement?
- Do you think changing the arrangement of the chair backs changes the connotation? Why?



Jurgen Bey
Treetrunk Bench, 1999
 Bronze casts of existing chairs, treetrunk
 45 x 400 x 100 cm

Back covers of bronze chairs can be put into any log in any arrangement.

- What are radiators used for? How do radiators work?
- Do you have radiators in your home? Where are they? Are they in the open or hidden away from view?
- How is your schoolroom heated? What is the heat source? Is the heat source in full view or hidden from sight? How is the heat distributed in your school? What do you think of the design? Is it attractive?
- Why do you think the artist chose this form for his radiator? Why do think he chose these materials?
- Do you think this radiator is attractive to look at?
- Where would you put this in your house? Would this go in the same place as your existing heat source?
- Why do you think this piece takes up so much room?



Joris Laarman
Radiator, 2003
Concrete, plumbing parts
various sizes

A fence that elicits contact between neighbors.
The items on the fence can be borrowed on each side of the fence.

- Where do you see fences? What are fences used for? Does the function of a fence change based on where the fence is located? Describe different type of fences and the meaning associated with them.
- Do you have a fence at home? What is it used for? Do you have a fence at school? What is it used for? How is this fence similar or different from the fence at home or school?
- Why would one build a fence like this?
- What has the artist expressed through creating *Share Fence*? What does it say about our society?
- What is the artist trying to change about societies' use of fences or our behavior?
- What are fences typically made of?
- If this was your design, what items would you include in your share fence?



NEXT Architects
Share Fence, 2001
Wood and other materials
200 x 200 x 4 cm

- Do these objects look familiar? What was their original function?
- Why do think the artist chose this specific number of bottles? Why did the artist choose to use these bottles to make a lamp?
- Why are the objects so low to the ground?
- What makes this lamp funny or different?
- Who do you think the designer designed this lamp for?



Tejo Remy
***Milkbottle Lamp*, 1991**
milk bottles, 15 W bulbs
36 x 27 x 310 cm

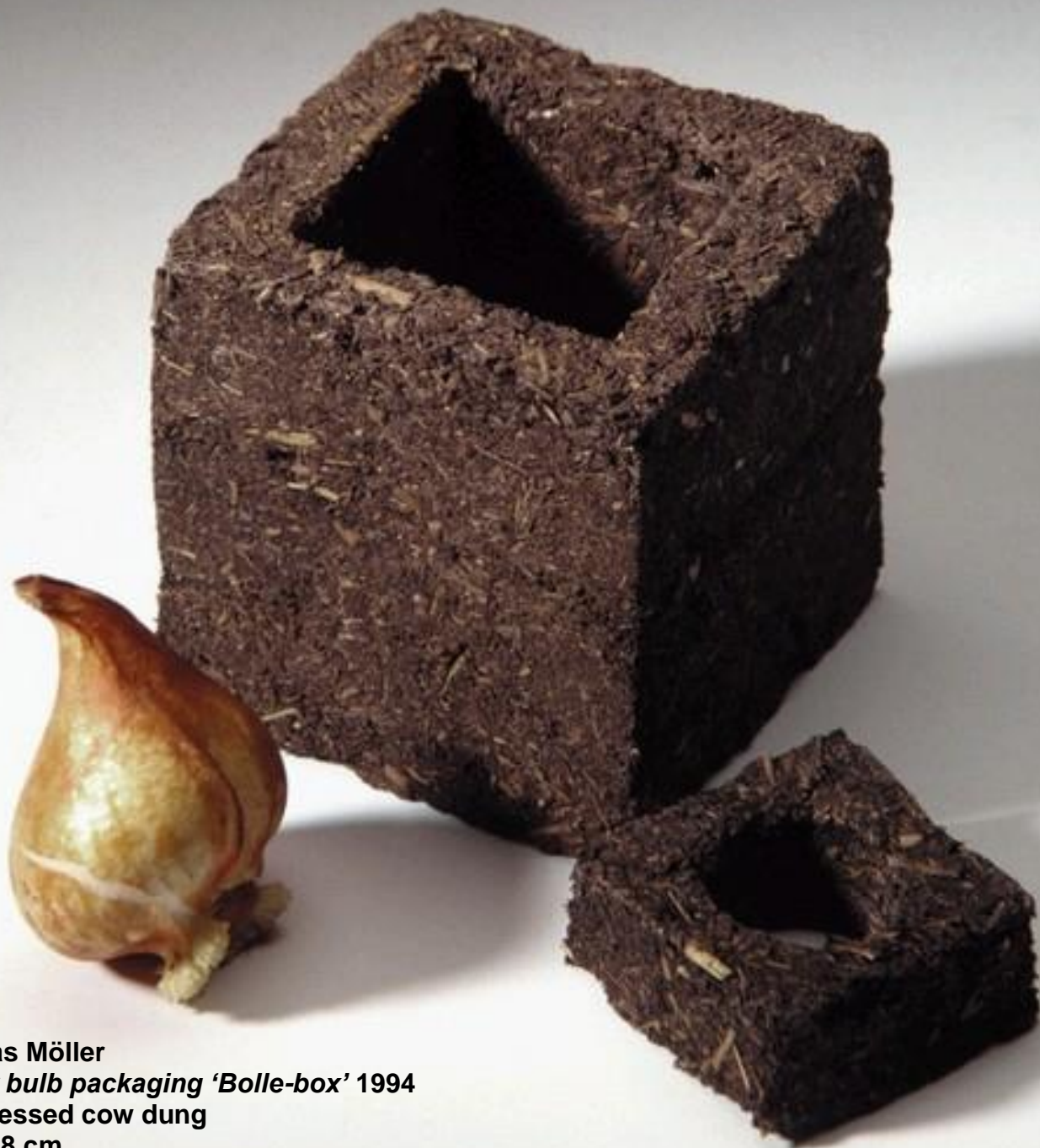
“These rice bowls are based on the idea of reinventing Chinese rituals. Leaving some food means respect for the host, that’s why the bowl has got an extra pocket. The bowl with the handle refers to the habit of lifting the bowl when eating rice.”

- **What are bowls used for?**
- **How is this bowl similar to ones you have seen before? How is it different?**
- **What tools do you use to eat? Compare those tools to this bowl.**
- **The artist designed these bowls based on Chinese rituals. The bowl with an extra pocket is a place to leave some food to show respect to the host. The ritual of lifting the bowl up when eating rice inspired the bowl with the handle. What does your family put into a bowl? How would you change a bowl to reflect this practice?**
- **Would you like to eat from this bowl? Why or why not?**



Michelle Huang
Bowls 'Reinventing Rituals', 2002
porcelain, various sizes

- What parts of this object look familiar?
- How might this object be used?
- This box is meant to hold a plant bulb, and is made from cow dung. Why might the artist have chosen this material? (Note: The idea behind this piece was to sell the Dutch manure surplus to tourists.)
- This object is an example of sustainable design, meaning that the object reuses waste. What materials do you reuse or recycle to reduce waste?
- This object acts as a souvenir for a traveler to the Netherlands. What in this object represents the culture of the Netherlands? (see info. on page 7)
- What object would you give a traveler as a souvenir from your hometown or culture?



Andreas Möller
Flower bulb packaging 'Bolle-box' 1994
Compressed cow dung
8 x 8 x 8 cm

Melvis & Van Deursen
Personal Planner, 2000
Paper, plastic sleeve
22 x 18 x 2 cm

BE RIGHT
BACK!

This is a personal planner that can be adapted to the user's tastes and needs. The cover of the planner consists of a transparent soft plastic with lots of compartments to store all kinds of small personal belongings. This allows the user to create and change the look into ones own truly personal planner.

- What do people use planners for?
- What types of items are put in personal planners?
- What types of items would/do you put in your own personal planner?
- How would you use this particular planner in your daily life?
- Would you re-design it for yourself? How?
- What do you think of the design aesthetic of this object?
- Why do you think the designer chose to use this material?

IN

OUT

Post-Visit Classroom Activities

Activity 1: Design a Toothbrush

Suggested level: Grades K-12

Time: One class period

Objectives:

- a) To understand that objects used everyday (such as a toothbrush) are designed by artists or designers.
- b) To understand that objects have both a function and a design. (The function of a toothbrush is to brush your teeth. The toothbrush's design is its look, style, and color.)
- c) To create a toothbrush design out of colored modeling clay or dough.

Materials:

- Colored modeling clay or colored dough.

Vocabulary:

- Design
- Designer
- Industrial design
- Mass-production
- Manufactured products
- Factory-made materials

Activity:

Part One

Innovation in design can come from three main sources: the identification of a need, the development of new materials or the development of new manufacturing processes. When creating new designs, designers are constantly asking themselves questions. Instructors should pose the following questions to the students:

- What job does a toothbrush have?
- What are toothbrushes made from and why?
- Does your toothbrush look exactly like your mom's, dad's, brother's or sister's? (Instructors may want to bring in 2 or 3 different types of toothbrushes as examples.)
- What parts do all toothbrushes have in common?
- How do toothbrushes differ?
- What parts are essential for the toothbrush to do its job?
- Do you have a favorite toothbrush? Why is/was it your favorite? Discuss that every toothbrush (as well as almost every object) was designed by an artist. These specific artists are usually called designers.

Part Two

- Have each student choose one color of clay or dough to make the main shape of their toothbrush design.
- Have each student use other colors or dough to add details, colors, patterns, designs, etc.
- Have each student think about their inspiration for their toothbrush design. They can also customize their toothbrush design for a family member, celebrity or favorite character.

Part Three

- Have students gather together to display and reflect on their work with the class. Students can share their designs and talk about their choices. Refer back to the questions in Part One.
- You can also have the students design another object such as a chair, a book bag, a hat, a shoe, etc.

Activity 2: The Objects We Use

Suggested level: Grades K - 2

Time: One class period

Project Question: How do designers design objects to use in everyday life?

Objectives:

Students will explore the following questions:

- What do we need to live?
- What objects do we use each day?
- What colors, forms and materials make-up these objects?
- What choices do designers make when they create places to live?
- What living space would you design?

Materials:

- paper and pencils
- small cardboard boxes
- tacky glue
- scissors
- colored paper
- cloth
- small wood pieces
- markers or paint

Vocabulary:

- Design
- Utilitarian
- Color
- Shape/Form
- Texture

Activity:

Part One

Students will make a list of the objects that they used on the way to school. These may include a backpack, a toothbrush, etc. The class will then place all student backpacks in a pile. The class will discuss the differences in the backpacks. The group will then brainstorm the choices that a designer makes when creating an object, such as color, shape, size and materials. Students will discuss how these choices affect the way the object is used.

Part Two

Students will make drawings of ten objects they use each day. Students will then design a room to hold these objects. The room will be built from mixed media materials, such as paper, small boxes, cardboard, wood and cloth.

Reflection:

Students will examine their rooms. The class will then discuss.

- What objects do you use each day?
- How did you arrange these objects in your room?
- What colors and shapes repeat in your room?
- What materials did you use?
- What materials would you use if you could build to scale?
- How are the rooms similar?
- How are the rooms different?

Teacher Evaluation Questions:

- Have students gained an understanding of design choices such as color, shape and material?
- Do students understand that these choices affect object use?
- Have students identify objects that they need to live?
- Do room sculptures demonstrate unique solutions to storing, organizing and arranging objects?

Suggestions for Further Study:

Redesign an object you use each day. Compare and contrast a simple object across cultures, for example a fork and spoon and chopsticks. What do these different designs tell us about culture? Work as a class to design a community. List the objects and buildings a community needs to survive. Divide tasks and build a new city.

Activity 3: Chair Design

Suggested level: Grades 3-5

Time: One class period

Objectives:

- a) To understand that chairs are designed by artists.
- b) To understand that objects have both a function and a design. (The function of a chair is to allow people to sit. The chair's design is its look, style, and color.)
- c) To create a miniature chair design using paper sculpture techniques.

Materials:

- Construction paper in either one color or a variety of colors
- Scissors
- Glue

Vocabulary:

- Design
- Designer
- Form
- Function
- Mass-production

Activity:

Part One

The chair is one of the most familiar and widely mass-produced items in the world. It is an item that everyone has experienced and used. Assemble a few different chairs from the school and ask the students the following questions:

- How are the chairs the same?
- What parts do all chairs have in common? Why do you think they have these common parts?
- How are they different? Why do you think they are different?
- Do you have a favorite chair? Why is it your favorite?
- Are some chairs more comfortable than others?
- What are chairs made out of?
- What is a chair's function or job?
- Do all the chairs at home or at school look alike?

Discuss that every chair (as well as other objects) is designed by an artist (designer) and refer back to a variety of the chairs in the *simply droog* exhibit.

Part Two

- Lead students in a hands-on exploration of paper sculpture techniques: paper can be cut, folded, bent, twisted, curled, and rolled. In order to connect two perpendicular pieces of paper, fold a tab (or foot) on one of the pieces so it will glue flat to the other.

- Review elements of a typical chair (seat, back, arms, legs). What shapes is a typical chair made out of (variety of rectangles, half-circles, cylindrical, squares etc.)
- Students will create their own chair designs using paper sculpture techniques. Begin by breaking the chair into parts – cutting a shape for the seat, cutting and attaching legs, cutting and attaching a back cutting and attaching arms. The more familiar you are with paper sculpture techniques, the more you can fold, bend, twist, curl and roll versus just cutting and attaching.
- Have the students think about who they are designing their chair for. For a more whimsical approach have the students design a chair for an animal (a snake, fish, dinosaur, crocodile, giraffe, etc)
- Have students experiment with the basic elements of the chair by playing with the number of arms, legs, seats and backs the chair has.
- Students can experiment with the basic shape of chairs by creating chair designs that use more organic shapes rather than geometric shapes.

Part Three

- Students should view all of their classmates' artwork. Discuss similarities and differences between pieces.
- Use the questions from Part One to evaluate the chair designs created by each student.

Activity 4: The Ultimate School Desk

Suggested level: Grades 3-5

Time: One to two class periods

Objectives:

- a) To understand that there is more than one way to design a school desk.
- b) To understand that the success of a design rests on both how well it functions and how appealing it is visually.
- c) To understand that some designers re-use/re-combine/re-design existing objects.
- d) To be able to imagine a new desk design and create both a drawing and written description of this design.

Materials:

- Paper
- Pencils
- Colored pencils

Vocabulary:

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

Activity:

Part One

Lead a discussion about the school desks in your room. Notice the design of your desk – 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 desks?
- What do you use your desk for?
- What do you like about your desk?
- What don't you like about your desk?
- Have you ever had a school desk that was designed differently?
- Did it work better or worse than this desk and why?

Part Two

Review your school visit to *simply droog*, focusing the discussion on objects that were designed by re-using/re-combining/re-designing existing objects (such as *85 Lamps*, *Tree-trunk Bench*, *Chest of Drawers*, *Share Fence*).

Design challenge:

How could you re-design your school desk to create the ultimate school desk?

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

- How could you change your desk to make it the ultimate desk? Think about adding to or subtracting from your desk, or even cutting and re-arranging parts.
- Think about how to make your desk more useful and/or playful (think back to Droog's designs).
- Would you want a secret compartment?
- Would you want hooks on the bottom to hang your school bag? Would you want a built-in chair?
- Would you want a share wall on the inside of your desk so you can share things with your neighbor? Be imaginative.

Individually, create a color drawing (diagram) with a written description of your ultimate desk.

Part Three

Have the whole class present their desk designs. Have the class discuss the following:

- Which design changed your current desk design the most?
- Which design changed it the least?
- Which design is the most practical?
- Which design is the most playful?
- If you could choose one of your classmate's designs to be mass-produced, which one would you choose?

Further suggestions:

- Have the students try to incorporate some of their design ideas by changing and personalizing their own desk, using colored paper, cardboard, boxes, tubes, etc.
- Use paper/cardboard to make miniature models of their ultimate school desk design.
- Design the ultimate teacher's desk.
- Design a chair that complements your ultimate school desk.

Notice the placement of school desks in your room and make a map of it. Then design a new way to arrange your desks and create a map of this. Why would you arrange the room this way?

Activity 5: Furniture Fit

Suggested level: Grades 6-8

Time: One class period

Objectives:

a) Have students think about how the design of furniture can reflect the utilitarian needs and tastes of an individual

b) Have students explore the following questions:

- What furniture do you use everyday?
- How is furniture designed for your body?
- What would improve the furniture you use?
- What would you consider when designing a piece of furniture for a person you know?
- What would make this unique or customized?

Materials:

- Paper
- Pencil
- Wood
- Cardboard
- Foam sheets
- Model Magic (or other kind of clay)
- Paint

Vocabulary:

- Design
- Designer
- Evaluation
- Custom-made
- User-friendly

Activity:

Part One

Students will list the furniture they have in their bedrooms. Students will discuss how the design of these pieces does or does not fit their personal needs and taste. The class will visit the galleries to examine the works in *simply droog*.

The class will complete an inquiry with the *Rag Chair*.

- What do you see?
- Describe the materials the artist used.
- How is the chair similar or different from the chair you sit in at school?
- How is the chair similar or different from a couch?
- Would you want to own this chair? Why or why not?

Part Two

Students will choose a friend or family member as the inspiration for a room design. Students will list the tasks the person will do in the room, such as sleep or eat, as well as list colors and shapes that represent the personality of the individual. Students will draw a plan of a room for this person, including original furniture. Students will then choose one piece of furniture and build a model using paper, wood, cardboard, foam sheets, Model Magic (or other kind of clay) and paint.

Part Three

Have students examine and discuss all the furniture models. What aspects of these pieces meet a utilitarian need? What aspects represent the personality of the individuals? Identify a challenge or success encountered in the design and building process. What about these pieces is similar to the work in the *simply droog* exhibition?

Activity 6: Innovative Design and the Function of an Object

Suggested level: Grades 6-8

Time: One to two class periods

Featured Artworks:

Tejo Remy, Rag Chair, 1991

Tejo Remy, Milk Bottle Lamp, 1991

Objectives:

- a) To understand that design is a process by which innovation occurs.
- b) To recognize problems and use the design process to create solutions.
- c) To become aware of the many functions an object might have.
- d) To create a prototype for a functional object or work of art by using only what is available.

Materials:

- Shoeboxes
- Wood scraps
- Cardboard
- Rolls of thick masking tape,
- Fabric
- Tissue paper
- Felt
- Pipe cleaners
- Yarn
- String
- Glue
- Scissors
- Drawing and writing paper, chart paper
- Small objects supplied by students (discarded toys, memorabilia)

Vocabulary:

- Innovation
- Function
- Prototype
- Reuse
- Assemble
- Mass production
- Hypothetical

Activity:

Part One

Ordinary objects can function in ways that differ from how they were originally designed to function. For instance one might not consider using milk bottles as a lamp, or a chair made out of old rags (review suggested *simply droog* objects). Create a hypothetical situation for the students. Ask them to imagine that they are stuck in a room that is empty except for a bucket that sits in the corner and a marker. There is one window, but it is a foot above all of their heads.

- What are some problems that might occur in this room?
- Does the object have to function as it was originally intended in order to be considered functional?
- What problems could the bucket solve?
- What are some objects that are not considered furniture but could easily function as furniture?
- What are some objects that are not considered tools but could easily function as tools?

Part Two

- Students will design and assemble an object made of a series of selected materials. Instruct the students to try to recognize or create a problem that the object they are designing will solve. This will allow them to be far more innovative with their ideas. Students should write or sketch at least three ideas for objects that might be possible to construct prior to obtaining their materials.
- Use a central table for all of the various materials suggested for the exercise. Identify the table as “the factory”. Students will only have access to that which “the factory” provides, and they must show proof of ideas before the factory will provide them with materials. It is up to the students to decide how these materials will aid them in creating their objects. Each student should also have a pencil and paper handy to make notes and sketch out ideas. Students will then proceed to assemble their objects.

Part Three

Students should display their work as a group and discuss the different ideas behind the objects.

- What is the purpose of the object?
- Is the object functional?
- What problem(s) does it solve?
- How big would the actual object need to be in order to achieve its intended function?
- Is the object intended to be mass-produced?

Activity 7: Object Transformations

Suggested level: Grades 9-12

Time: One to two class periods

Project Question:

How do designers transform the way we live by transforming the objects we use in everyday life?

Objectives:

Students will explore the following questions:

- What objects do we use each day?
- How are these objects designed?
- How do objects inform the way we function?
- How might changing the form of an object change its use?
- How can an object become a material and a material become an object?

Materials:

- Simple objects, such as paper clips or pencils
- Student collected objects
- Adhesives such as tacky glue, glue gun and clear tape
- Paper
- Colored pencils

Vocabulary:

- Design
- Utilitarian
- Form
- Function
- Product identity
- Logo

Activity:

Part One

Define form and function, identifying how the materials, forms and colors of a pencil relate to its use as a writing tool. Discuss what could be done to the pencil to make it more useful or useless. Brainstorm new uses for the pencil. Work in teams and receive a pile of multiples of a simple object, such as pencils, candy wrappers or paperclips. Together use this object as a raw material and create a new object with a utilitarian purpose. Compare the solutions.

Part Two

Students will build a collection of one material or object that is readily available. This could be paper towel holders, plastic bags, old books, buttons, etc. Students will then be assigned the task of creating an item that can be worn from this object. Only the object and an adhesive may be used as materials. Students will then create

a brand identity for the design and express this idea in a drawn product logo.

Reflection:

Students will examine the wearable items. The class will then discuss.

- What objects were chosen as materials?
- What materials were most challenging to manipulate?
- What design choices were made in creating the item?
- Can this item actually be worn?
- Does it hold its form?
- What does the item express about the person wearing it?
- How does the logo express this idea?

Teacher Evaluation Questions:

- Have students gained an understanding of design choices such as color, shape and material?
- Do students understand form and function?
- Did students make unique choices in manipulating materials?
- Do the objects created function without breaking?
- Do the logos reflect the spirit, or identity, of the designed object?

Suggestions for Further Study:

- Redesign an object you use each day so it is useless.
- Create a second item to wear with any material. Compare to the same item made with the found objects.
- Examine the design of an object that is needed for society to function. Create a new version of this object that would make life better. For example, design and draw a better subway car.
- Make an abstract or representational sculpture using multiple objects as material.

Glossary

Acrylic - A clear plastic that is used as a binding agent in paint and as a casting material in sculpture.

Aesthetics – a set of principles of good taste and appreciation of beauty

Aluminum – a light, nontoxic, nonmagnetic and nonsparking silvery-white metal. It is easily formed, machined, and cast. Aluminum is an abundant element in the earth's crust.

Aramid fiber – is a fire-resistant and strong synthetic fiber. It is used in aerospace and military applications, for "bullet-proof" body armor fabric, and as an asbestos substitute. The term is a shortened form of "aromatic polyamide".

Assemble - to bring together or gather into one place, company, body, or whole. To put an object together.

Cast – to shape a material such as metal, glass or plastic by pouring or pressing it into a mold.

Carbon fiber - can refer to carbon filament thread, or to felt or woven cloth made from those carbon filaments.

Collaborate – work with others on a joint project.

Color - something that is used for coloring; pigment; paint; tint; dye.

Concept – a mental picture of a product; an idea.

Design – the general form or composition of any work of art.

Design consultant – someone hired by a company to design a product or system.

Designer - a person who devises or executes designs, esp. one who creates forms, structures, and patterns, as for works of art or machines.

Diagram - a drawing or plan that outlines and explains the parts, operation, etc., of something.

Environment - the social and cultural forces that shape the life of a person or a population; the air, water, minerals, organisms, and all other external factors surrounding and affecting a given organism at any time.

Epoxy - A resin characterized by toughness, strong adhesion and low shrinkage.

Ergonomics – the study of humans in relation to their environment. Designers use ergonomics to ensure that a product will be both comfortable and convenient for the users.

Evaluation – a judgment on the good and bad points of design or performance of a product.

Factory-made – produced in quantity at a factory.

Fiberglass – A plastic reinforced by glass fibers.

Form – a shape; an arrangement of parts

Function – the intended purpose of a thing or person

Glass - A homogeneous material with a random, liquid like (non-crystalline) molecular structure. The manufacturing process requires that the raw materials be heated to a temperature sufficient to produce a completely fused melt, which, when cooled rapidly, becomes rigid without crystallizing.

Hypothetical – an assumed state.

Improvement – to make an object better.

Incremental – a little at a time.

Industrial Design – the professional service of creating and developing concepts and specifications that optimize the function, value, and appearance of products and systems for the benefit of the user and manufacturer.

Innovative – inventing or applying new ideas and methods.

Integral – included in the main structure of the item; not added afterwards.

Laminated - Composed of layers bonded together for strength, thickness or decoration.

Layout – arrangement of text and graphics on a page.

Maple – typically a straight grain wood (sometimes with a wavy figure and a birds eye pattern) with a color of white sapwood with a reddish brown heartwood.

Mass-production – continuous production which may run into millions of items. The high initial cost of complicated tools and molds is offset by the number of identical products which can be made.

Medium - A particular material along with its accompanying technique; a specific type of artistic technique or means of expression determined by the use of particular materials.

Mixed Media - works of art made with more than one medium.

Model – a representation, generally in miniature, to show the construction or appearance of something. An image in clay, wax, or the like, to be reproduced in more durable material.

Modeling – trying out an idea on paper, computer, or in 3D.

Modify – to make changes.

Multi-disciplinary – involving many different branches of learning.

Organic – relating to animals and plants; influenced by their forms.

Pattern - an artistic or decorative design.

Plastic - 1. Pliable; capable of being shaped. 2. Synthetic polymer substances, such as acrylic.

Plywood – a strong board consisting of two or more thin layers of wood glued and pressed together, with the direction of the grain alternating.

Polypropylene – one of a group of thermoplastics used to make molded objects and fibers.

Post-Modern – a style from the end of the 20th century that built upon and expanded the principles of Modernism.

Posture – the position of the body or limbs.

Prefabricated – made of parts manufactured before their assembly elsewhere.

Presentation – a spoken or written report, often using visual materials.

Production engineering – designing and adapting machinery and systems to manufacture a product.

Profile – a description of a product or person.

Prototype – a trial model, made so that a design can be tested before it is produced.

Recycled - Using materials more than once.

Resilient – able to regain an original shape or position after being pressed, stretched or bent.

Resin - transparent to translucent yellow or brown, solid or semisolid, viscous substances of plant origin used mostly in lacquers and varnishes. A substance used to coat and protect a surface, which may be shiny.

Re-use - to use again, especially after salvaging or special treatment or processing.

Rubber – A yellowish, amorphous, elastic material obtained from the milky sap or latex of various tropical plants, especially the rubber tree that is modified and finished to make products such as electric insulation, elastic bands and belts, tires, and containers. Or, any of numerous synthetic elastic materials of varying chemical composition with properties similar to those of natural rubber.

Scale - the proportion that a representation of an object bears to the object itself.

Shape - An element of art, it is an enclosed space defined and determined by other art elements such as line, color, value, and texture.

Sign - any object, action, event, pattern, etc., that conveys a meaning. A conventional or arbitrary mark, figure, or symbol used as an abbreviation for the word or words it represents.

Solution - the act of solving a problem, question, etc.

Specifications – a detailed description of the required performance, appearance, materials or other components of the design.

Steel - a metal alloy whose major component is iron, with carbon being the primary alloying material.

Strategy – a plan for tackling a task.

Symbol - A form or image implying or representing something beyond its obvious and immediate meaning.

Synthetic – made artificially.

Technology transfer – using knowledge about one subject to solve a problem in another.

Texture - An element of art, texture is the surface quality or "feel" of an object, its smoothness, roughness, softness, etc. Textures may be actual or simulated. Actual textures you can feel while simulated textures are suggested by an artist but do not actually feel the way they look.

Turned - Wood shaped by tools while it revolves about a fixed axis, such as a lathe. Cylindrical forms (dowels, rungs) and circular designs are made in this way.

Upholstery – the cloth covering on padded furniture such as sofas and chairs.

User evaluation – a study of the target user’s lifestyle and requirements, or a test asking the user to try a product out.

Veneer - a thin sheet of a material - a layer of wood of superior value or excellent grain to be glued to an inferior wood or any of the thin layers bonded together to form plywood.

Wool - the fiber from the outer coat of primarily sheep and goat.

Selected Bibliography

Bakker, G., Ramakers, R., Droog Design. Spirit of the Nineties, 010 Publishers, 1998.

Berger/Hawthorne, Ready Made, Clarkson Potter, NY, 2005.

Centraal Museum Utrecht, Droog & Dutch Design, Centraal Museum Utrecht, 2000.

Droog Design, Bar Europe, Droog Design, 2004.

Droog Design, Go Slow, Droog Design, 2004.

Droog Design, Me, myself and you, Droog Design, 2001.

Droog Design, Pocket furniture. Droog Design for Picus, Droog Design, 2001.

Droog Design, Droog Design. The real life of objects, The Lighthouse and 55 degrees, 2000.

Droog Design, Value for Money, Droog Design, 2005.

Droog Design, Your Choice one, two and three, Droog Design, 2003.

Ekel, F., Hotel Droog, Droog Design, 2002.

Kim, S., Ramakers, R. etc., No Design, No Style. Droog Design, Hangaram Design Art Museum, Seoul Arts Center, 2003.

Krol, A., de Rijk, T., Yearbook Dutch Design 03/04, Rotterdam 2004.

Ramakers, R., Droog Design Catalogue, Droog Design, 2000.

Ramakers, R. Joanna van der Zanden, Do Create. Do & Droog Design, Kesselskramer, Amsterdam, 2000.

Ramakers, R., Wendel, Droog Event #1 – Open Borders, Design, Lille, 2004.

Ramakers, R., Simply Droog, 10+3 years of creating innovation and discussion, Droog Design, 2006.

Ramakers, R., Less & More, 010 Publishers, 2002.

Stichting Droog Design, Droog Design Catalogue, Droog Design, 1994.

van Zijl, I., Droog Design 1991-1996, Centraal Museum Utrecht, 1997.

Magazine/Newspaper Articles:

Abitare, "Droog Design", Abitare, Italy, January 1, 1995.

Betsky, A., "The I.D. Forty", I.D., USA, January, 2005.

Compton, N., "Dutch Masters", Wallpaper, UK, May 2005.

Compton, N., "The Future of Furniture", Wallpaper, UK, July 2005.

EDC News, "A New Trend: Dutch dry design in Milan", EDC News, May 2, 1993.

Fairs, M., "Interview with Gijs Bakker en Renny Ramakers", Icon, UK, May 2005.

Fairs, M., Long, K., "Milan Top 10", Icon, UK, July 2005.

Gandolfi, E., "Droog Design Superfici", Ottagono, Italy, June 2002.

Hales, L., "Droog Design: Lighting Up Middle America", Washington Post, US, June 1, 2000.

Horsham, M., "What is Droog?" Blueprint, UK, October 1996.

Jozsef, M., "Milánó 2004", Octogon, Hungary, January 1, 2004.

Junte, J., "Droog Did It Again" De Volkskrant, The Netherlands, May 23, 2002.

Kamijyo, M., "Cover interview with Gijs Bakker" Axis, Japan, January 2003.

Phillips, I., "The Future's Orange", The Observer, US, June 11, 1999.

Picchi, F., "Observatories on Nature", Domus, Italy, October 2004.

Relph-Knight, L., "Dutch Treat", Design Week, August 14, 1998.

Taroni, F., "Coloured Interiors", Case da Abitare, Italy, January 2005.

Terada, M., "Droog Design", House Styling, Japan, August 17, 2005.

