

ARTFUL CONNECTIONS WITH MATH



The Art Store

2nd & 3rd Grade

This PDF contains BOTH the 2nd Grade & 3rd Grade Lesson Plans

The Art Store

2nd Grade Lesson Plan

ARTFUL CONNECTIONS WITH MATH GRADE 2

Wire Sculpture Art Supply Store

2 sessions – 90 minutes

Essential Question: How do artists purchase materials for creating a project?

Lesson Goal: Given a budget, students create proposals, purchase materials from a classroom “store”, and create a sculpture on a foam base.

Lesson Objectives:

Students will be able to:

- add and subtract while purchasing art supplies
- create an imaginative sculpture using materials of their choosing

Common Core State Standards for Mathematics

Numbers & Operations in Base Ten: Understand Place Value

2. Count within 1000; skip-count by 5s, 10s, and 100s.

Measurement & Data: Work with Time & Money

8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?

Visual Art Content Standards

ARTISTIC PERCEPTION 1.4: *Compare and contrast two works of art made by the use of different art tools and media (e.g., watercolor, tempera, computer).*

CREATIVE EXPRESSION 2.2: *Create an imaginative clay sculpture based on an organic form.*

HISTORICAL AND CULTURAL CONTEXT 3.3: *Distinguish and describe representational, abstract, and nonrepresentational works of art.*

AESTHETIC VALUING 4.1: *Compare and contrast selected works of art and describe them, using appropriate vocabulary of art.*

Sample Materials

- watercolor set
- water cups
- watercolor paper
- oil pastels
- twisty wire
- armature wire
- foam base

Key Vocabulary

Math: dollars; cents; value; unit cost; total cost

Art: sculpture; base



Pre-Lesson Session:

Coin Grab

Player One grabs a handful of coins from the bag. Player Two keeps what is left in the bag. Each player sorts the coins and fills in the worksheet:

- Player One grabbed ____ quarters, ____ dimes, ____ nickels, and ____ pennies from the bag.
- Player Two counted ____ quarters, ____ dimes, ____ nickels, and ____ pennies left in the bag.
- Player 1 has _____.
- Player 2 has _____.
- Who has more money? _____
- We have _____ altogether.

Show your calculations:

- Player One grabbed ____ quarters, ____ dimes, ____ nickels, and ____ pennies from the bag.
- Player Two counted ____ quarters, ____ dimes, ____ nickels, and ____ pennies left in the bag.
- Player 1 has _____.
- Player 2 has _____.
- Who has more money? _____
- We have _____ altogether.

Show your calculations:

- Player One grabbed ____ quarters, ____ dimes, ____ nickels, and ____ pennies from the bag.
- Player Two counted ____ quarters, ____ dimes, ____ nickels, and ____ pennies left in the bag.
- Player 1 has _____.
- Player 2 has _____.
- Who has more money? _____
- We have _____ altogether.

Show your calculations:

Session 1 – Look at Art, Complete Proposal, Purchase Supplies

ACCESS PRIOR KNOWLEDGE (5 min)

- What is a budget?
- How can we use a budget to plan and purchase the materials we need to create our artwork?
- Review dollars and cents- naming each coin and how they each make up parts of the dollar.

ART OBSERVATION (15 min)

Show students images from Julia Haft-Candell

- What do you notice?
- What do you notice about the way objects are placed?
- What do you notice about the color in the image?
- Where is the negative space in the sculpture?
- What do you think this is made of?
- How do you think the artist made these artworks?
- Look at the titles. What message do you think the artist was trying to convey?

WARM UP ACTIVITY (50 min)

- Give each student an “art store invoice” (attached).
Note: Teachers should modify invoice to reflect the level of mathematical difficulty they want to present their students. For 2nd grade, all costs should be in whole dollars, as decimals have not yet been introduced.
- Students make at least 2 sketches of their proposed sculptural project in their journal.
- Students make a list of the materials and the estimated quantities of materials they will need to complete their project based on the budget they are given to work with.
- Demonstrate how students should complete their order form. create a sample problem on the board to ensure each student knows how to add up their purchases and make change.
- Demonstrate how to make a transaction at the “store.”
- Students purchase their materials from the store, and keep in a bag labeled with their name.
- Call students up to the store in groups.
 - Limit the amount of items that can be purchased at one time (to keep the line of students moving and also to encourage students to fill out the order form several times).
 - When students are ready to “checkout”, they will need to show the cashier the sum total of their purchases(worked out on the invoice) and give them the amount of money needed.
 - If change is needed, the student will also need to figure this out and write it on the invoice.
- Students may make additional trips to the store as necessary.
- Students who finish early may take turns acting as the cashier of the store. If time permits, students may start to combine and manipulate their purchased materials into a sculptural form. Projects are stored for the following week in a large ziplock bag.

CLOSURE (20 min)

- Where did you get your idea for what to make?
- How did you choose which sculpture to create based on your two ideas?
- How do you know if you will have enough money? Did you have to make any adjustments to your budget?

Session 2 – Create Sculpture

ACCESS PRIOR KNOWLEDGE (10 minutes)

- What do you know about sculpture?
- What are some ways to transform recycled materials?

ART ACTIVITY (60 minutes)

- Students use their purchased materials to create a sculpture.
Note: Teachers can require students to create sculptures that relate to other content areas (e.g. make solar powered buildings, or animals that have been studied in science). Teachers can also have students work in groups.
- Store can still be open for students to purchase additional supplies as necessary.
- If time permits, students can make drawings of their sculpture from various angles in their journal.

Extension: Ask students to think about how much they would sell their work for. Think about the cost of materials, how much they will have to give to their gallery/school etc...

CLOSURE (20 min)

Students share and describe their sculptures with the class.

- What materials did you use?
- How did you use your materials?
- What do you notice about line, shape, color, form?
- Which projects from this year inspired you?
- What would you title this work?



Julia Haft-Candell, *Summer Star*
Porcelain, terracotta, glaze, epoxy resin, dyed linen, rebar, Flashe
41 x 32 x 8 inches
2013
Installation at ACME., Los Angeles
Photos by Robert Wedemeyer



Julia Haft-Candell, *in the autumn!*

Porcelain, stoneware, glaze, epoxy resin, linen, silk, thread, ink, gouache, paper, steel, aluminum,
wood
111 x 68 x 52 inches
2013
Installation at ACME., Los Angeles
Photos by Robert Wedemeyer

Julia Haft-Candell

www.juliahaftcandell.com

Julia assembles hand-painted clay fragments, fabric surfaces, and structural wire and rebar to manifest surreal architectures. According to the magazine *art ltd.*, when in the presence of Haft-Candell's fantastical ceramic pieces, the viewer feels as though they are witness to the creation, destruction and rebuilding of large-scale pieces that have been intentionally broken and mended. And the influential *Art in America* posits that though scrappy and raw, her work nonetheless has a kind of humble elegance.

Julia received her MFA from California State University, Long Beach. She has shown broadly and has been reviewed in the *Los Angeles Times*, *Art in America*, and is an artforum.com critics pick, among others. She is currently a Lincoln Visiting Artist in Ceramics at Scripps College and Claremont Graduate University.

Selection from <http://www.apu.edu/cma/vpa/artdesign/announcements/20622/>

Julia Haft-Candell creates three dimensional collages using ceramics and mixed media. She has exhibited her work at ACME in Los Angeles, the Huntington Beach Art Center, the Richard L. Nelson Gallery at UC Davis, Inman Gallery in Houston, and Greenwich House Pottery and Meulenstein Gallery in New York. In addition, Julia shows and sells her functional ceramic ware at Iko Iko in West Hollywood. Before recently starting at Scripps and CGU as the first Joan and David Lincoln Visiting Artist in Ceramics, she taught at CSU Long Beach, CSU Northridge and The California State Summer School for the Arts.

Selection from <http://sites.cgu.edu/art/faculty/julia-haft-candell/>

Art Store Invoice

Budget - \$10.00

Material	Cost	Quantity Needed	Total Cost
Watercolor paper - ½ sheet	25 per piece		
Watercolor Sets / Brushes / Water cup	\$4 per set		
Oil Pastel Set	\$2 per box		
Color Wire	\$1 per piece		
Beads – 1 cup	\$4.00 per cup		
Armature Wire (silver)	\$1 per piece		
Foam Base	Free! (one only)		
		Total Cost:	
		Change Needed:	

Sculpture Supplies Order Form

* You may fill in only 3 lines at a time, total.

Item	Cost	Quantity	Total
clay cubes	\$4.50 each		\$.
assorted sticks	\$1.00 for 5		\$.
plastic beads	\$3.00 for 12		\$.
pipe cleaners (one color)	\$.12 each		\$.
pipe cleaners (stripes)	\$.17 each		\$.
wooden beads	\$2.00 for 4		\$.
feathers	\$1.75 each		\$.
wiggle eyes	\$1.00 for 5		\$.

Total Amount \$.

Paying With \$
Amount Due \$

Change Back \$

wiggle eyes \$4.00
bead .25¢
4.50 cube clay
Bead wiggle eyes
Pipe cleaners 217 x 4 = 68¢
pipe cleaner
clay cube
pipe cleaners

idea sculpture 1

we \$4.00
be .25¢
pi .68¢
cu \$4.50
\$10.33

Pipe cleaners 51¢ beads 75¢
cube clay \$4.50
Pipe cleaners
cube clay
beads

idea sculpture 2

CC \$4.50
bd 75¢
PC + 51¢
\$5.76

The Art Store

3rd Grade Lesson Plan

ARTFUL CONNECTIONS WITH MATH GRADE 3

Art Supply Store 2 sessions – 90 minutes

Essential Question: How do artists purchase materials and create a project?

Lesson Goal: Given a budget, students create proposals, purchase materials from a classroom “store”, and create a sculpture on a foam base.

Lesson Objectives:

Students will be able to:

- Multiply, divide, add and subtract while purchasing art supplies
- create an imaginative sculpture using materials of their choosing

Common Core State Standards for Mathematics

Represent and solve problems involving multiplication and division.

3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true.

Visual Art Content Standards

ARTISTIC PERCEPTION 1.4: *Compare and contrast two works of art made by the use of different art tools and media (e.g., watercolor, tempera, computer).*

CREATIVE EXPRESSION 2.2: *Create an imaginative clay sculpture based on an organic form.*

HISTORICAL AND CULTURAL CONTEXT 3.3: *Distinguish and describe representational, abstract, and nonrepresentational works of art.*

AESTHETIC VALUING 4.1: *Compare and contrast selected works of art and describe them, using appropriate vocabulary of art.*

Materials

- Varied materials

Key Vocabulary

Math: dollars; cents; value; unit cost; total cost; budget

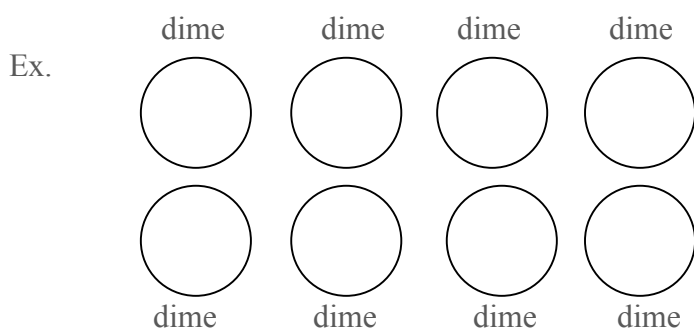
Art: sculpture; base; proposal



Pre-Lesson Session:

Because there is no longer the same emphasis on money in 3rd grade curriculum, but still feel that students need to have opportunities to interact with money amounts, we encourage you to build your array making skills in third grade using coins.

Elsie has eight dimes spread out in two rows with four coins in each row. Draw the coins. Now write two ways you can express the total amount of coins.



$$2+2+2+2=8$$

$$4 \times 2 = 8$$

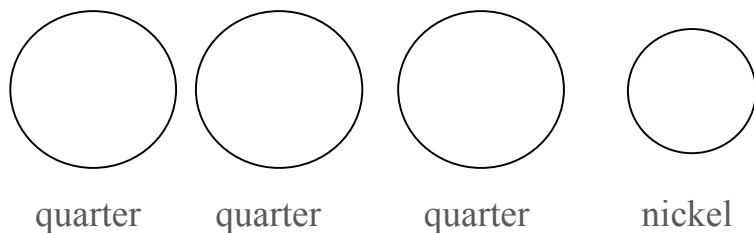
Students could also write $2 \times 4 = 8$

Also, encourage students to describe their picture using words. Ex. Two groups of four dimes equals eight dimes

Next, to review money, have students calculate the *value* of the money in their picture.

Ex. Eight dimes = 8×10 cents or 80 cents

Ask students: Can you find another combination of coins that equals 80 cents? Draw your new combination in the space below.



three quarters = 75 cents one nickel equals 5 cents

$$75 \text{ cents} + 5 \text{ cents} = 80 \text{ cents}$$

Session 1 – Look at Art, Complete Proposal, Purchase Supplies

ACCESS PRIOR KNOWLEDGE (5 min)

- What is a budget?
- How can we use a budget to plan and purchase the materials we need to create our artwork?
- Review dollars and cents- naming each coin and how they each make up parts of the dollar.

ART OBSERVATION (15 min)

Show students images from Jamie Scholnick

- What do you notice?
- What do you notice about the way objects are placed? (arrays)
- What do you notice about the color in the image?
- Where is the negative space in the sculpture?
- What do you think this is made of?
- How do you think the artist made these artworks?
- Look at the titles. What message do you think the artist was trying to convey?

WARM UP ACTIVITY (50 min)

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- Students make at least 2 sketches of their proposed sculptural project in their journal.
- Students make a list of the materials and the estimated quantities of materials they will need to complete their project based on the budget they are given to work with (\$10).
- Demonstrate how to fill out their order form. To make sure that each student knows how to add up their purchases and make change, create a sample problem on the board.
- Demonstrate how to make a transaction at the “store.”
- Students purchase their materials from the store, and keep in a bag labeled with their name.
- Call students up to the store in groups.
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CLOSURE (20 min)

- Where did you get your idea for what to make?
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ART ACTIVITY (60 minutes)

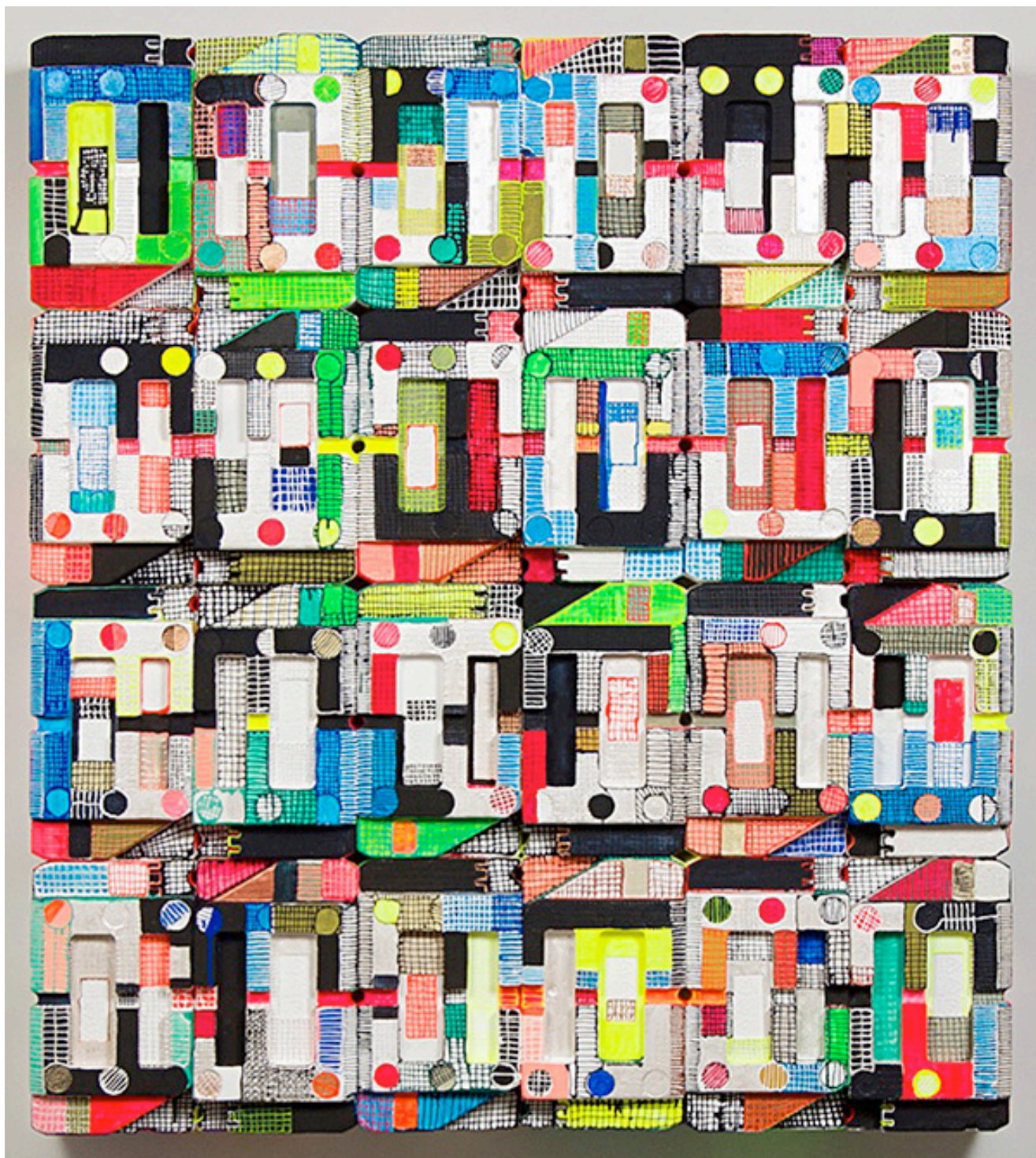
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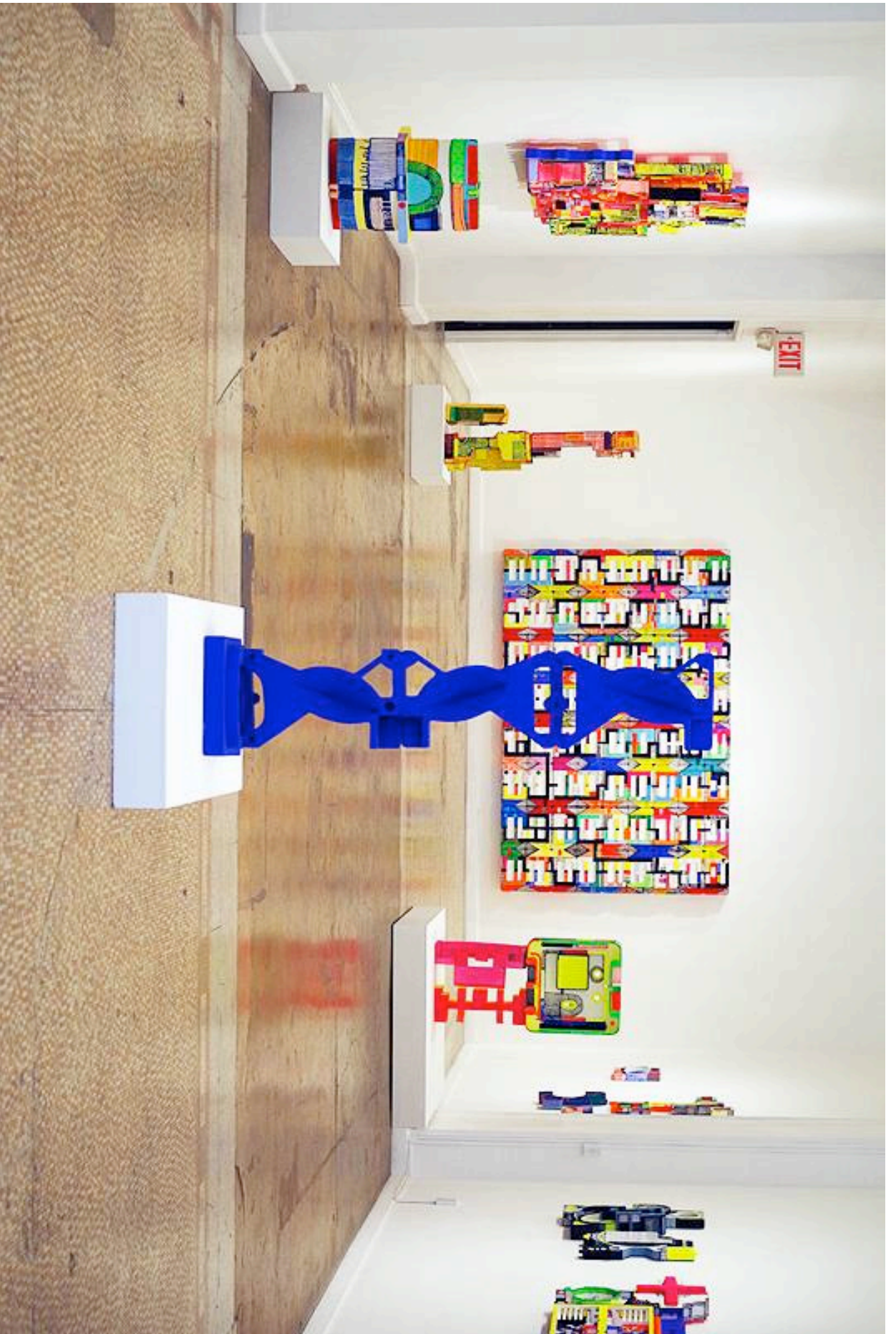
Jaime Scholnick

Toyboat, toyboat, toyboat

2012

Flashe, vinyl and acrylic paint on polystyrene

56" x 50" x 9"



Jamie Scholnick

This newest series of sculpture using unaltered Styrofoam, takes the viewer far into the future and asks them to become archeologists, holding up a mirror to our present-day society. What is imaged back, in the form of these colorful and obsessively adorned Styrofoam pieces, is a kind of "fossilizing" of history. They bookmark our moment in this civilization. These "fossils" are an attempt to re-write history. The intention for the original Styrofoam is elevated to one of a seemingly precious object, conceptually reversing the role that Styrofoam packing material plays in the hierarchy of our global economy.

This series of work with Styrofoam is both formal in its approach to color and form. Color choices are intuitively derived at from harmonies and discords used by painters, both historically and Contemporary. The mark making is dictated by the form of the unaltered Styrofoam. All sides of the pieces are addressed and can be configured in various ways to accommodate a given space.

It's interesting to imagine oneself as an excavator hundreds of years from now, uncovering these forms, and questioning their hierarchical importance and purpose in the past.

It's challenging not to slip into a feeling of a looming Apocalypse, to the demise of the United States as the supreme Super Power in the world; this dominant force that I have been accustomed to all my life. The ongoing economic disasters, natural calamities, and intolerance present in today's society add to this uncertainty. This aggregate of forms tries to capture those feelings, albeit subversively, while wooing the viewer with a seductive exterior surface. It acknowledges the proliferation of acquisition by our consumer-driven society and slants it in a different light. It hints at a lost civilization, a Xanadu that was once a beacon of excess and have-all. These pieces are the apotheosis of what was great; landmarks of a hedonistic, out-of-control consumer culture where "excess was not enough."

Selection from: http://www.drawingcenter.org/viewingprogram/share_portfolio.cfm?pf=1864

Jaime Scholnick is a visual artist working in a variety of mediums and forms. She received her MFA from The Claremont Graduate University. After a five year expatriation to Japan to study papermaking, Ms. Scholnick returned to Los Angeles in 1999. Her work has been exhibited in galleries and museums nationally and internationally at *PSI* Long Island City, *PØST*, *Angles Gallery* and *Bank Gallery*, Los Angeles, at the Torrance Museum of Art and the *Tall Wall Gallery* at the University of La Verne, CA. In Japan she has shown at the *Gallery Kobo Chika*, Tokyo. She was the recipient of the *Imadate Art Field* Artist in Residence , Imadate Japan.

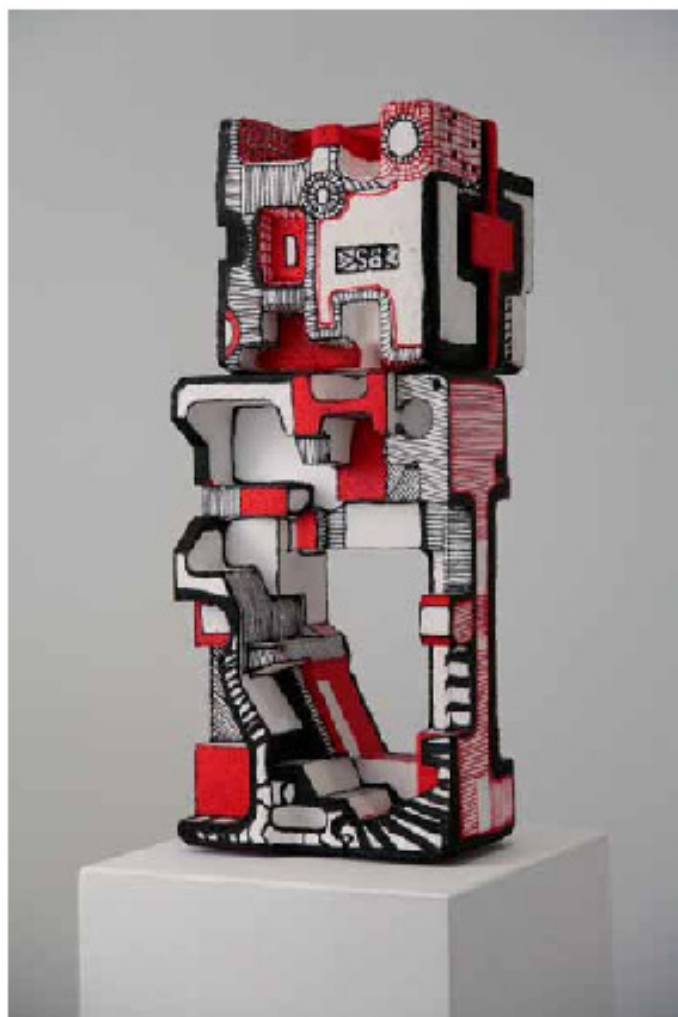
Ms. Scholnick lives and maintains a studio in Los Angeles.

Currently she is represented by CB1 Gallery, Los Angeles.

Selection from www.cb1gallery.com

Jaime Scholnick

IN HER OWN WORDS



Jaime Scholnick:
(left) *2 Towers*, 2009,
styrofoam, black
pen, acrylic paint,
62"x24"x6".
(right) *PSA Mail Cream*,
2009, styrofoam,
pen, acrylic paint,
22"x10.5"x6"

This latest series is a return to sculpture while exploring my obsession with line and love of drawing. The Styrofoam pieces in their original shapes (no cutting involved) dictate the design. It taps into a subconscious, spontaneous way of working that is devoid of the prior, self-conscious need to tackle big issues didactically. I feel that not being so obvious in meaning (as in my past series) makes this work stronger. This material was once debris, cushioning the far superior item that was desired. Here, the roles have been reversed, elevating this material to

"Art" while the initial object it held has or eventually will become the refuse.

This desire to push my work to new levels energizes me. I think it was De Kooning who emphasized that it is paramount for an artist to reinvent herself over and over again to keep it fresh. The present work feels familiar but isn't. Certainly there are the obvious references to Duchuffet or any number of artists that have used Styrofoam. At the same time the work is unlike anything that has preceded it. Some pieces are architectural

but that isn't my focus either. There is a desire to transform the refuse and not simply use it as found. The Duchampian ideal – "any object becomes art because I say so" – is an outdated paradigm.

I am always most satisfied with work that is open-ended allowing the viewer to make their own comparisons and narrative meanings. If contemporary art reflects current dialogues then the very use of this material as the inception for the creative work encompasses a full spectrum of ideas and beliefs that I hold.

Jaime Scholnick is represented by CBI Gallery in Los Angeles. For more information, visit cbigallery.com.

Sample Art Store Invoice

Budget - \$10.00

Material	Cost	Quantity Needed	Total Cost
Watercolor paper - ½ sheet	2 for \$6		
Watercolor Sets / Brushes / Water cup	2 for \$4		
Oil Pastel Set	3 for \$9		
Color Wire	2 for \$4		
Beads – 1 cup	20 for \$1		
Armature Wire (silver)	2 for \$1		
Foam Base	Free! (one only)		
		Total Cost:	
		Change Needed:	

Show your work here!

Sculpture Supplies Order Form

* You may fill in only 3 lines at a time, total.

Item	Cost	Quantity	Total
clay cubes	\$4.50 each		\$.
assorted sticks	\$1.00 for 5		\$.
plastic beads	\$3.00 for 12		\$.
pipe cleaners (one color)	\$.12 each		\$.
pipe cleaners (stripes)	\$.17 each		\$.
wooden beads	\$2.00 for 4		\$.
feathers	\$1.75 each		\$.
wiggle eyes	\$1.00 for 5		\$.
Total Amount			\$.

Paying With \$
Amount Due \$
Change Back \$

wiggle eyes \$4.00
bead .25¢
4.50 cube clay
Bead wiggle eyes
Pipe cleaners 217 x 4 = 68¢
pipe cleaner
clay cube
pipe cleaners

idea sculpture 1

we \$4.00
be .25¢
pi .68¢
cu \$4.50
\$10.33

Pipe cleaners 51¢ beads 75¢
cube clay \$4.50
beads

idea sculpture 2

CC \$4.50
bd 75¢
PC + 51¢
\$5.76