

QR Codes in Museum Galleries: Wave of the Post-COVID Future or Fleeting Fad?

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Karina Wizevich, Johns Hopkins University



MSM exhibit and evaluation work was funded through a grant from the Henry Luce Foundation



NEMA handout

Perfect Timing to Experiment!

COVID concerns about
touchscreens

Funding to evaluate and
experiment

Experienced evaluator

Creative curator

Range of outdoor and indoor
places to compare



What is a QR code?



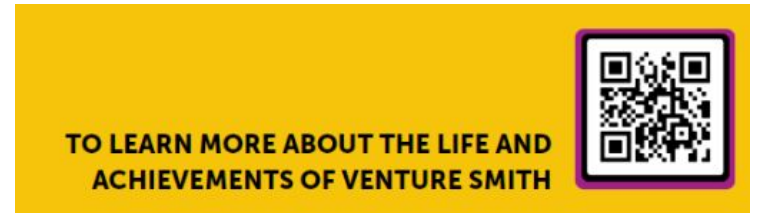
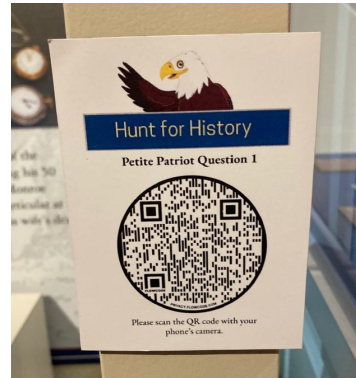
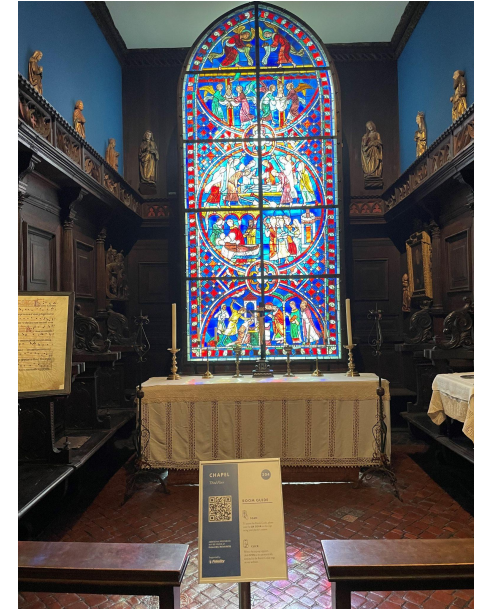
Scan the QR code to hear Klaus Murer talk about this trophy, his career, and his experiences on the water.

A QR (Quick Response) code is a unique barcode used to provide easy access to online material when scanned with a cellphone camera or other handheld personal device.

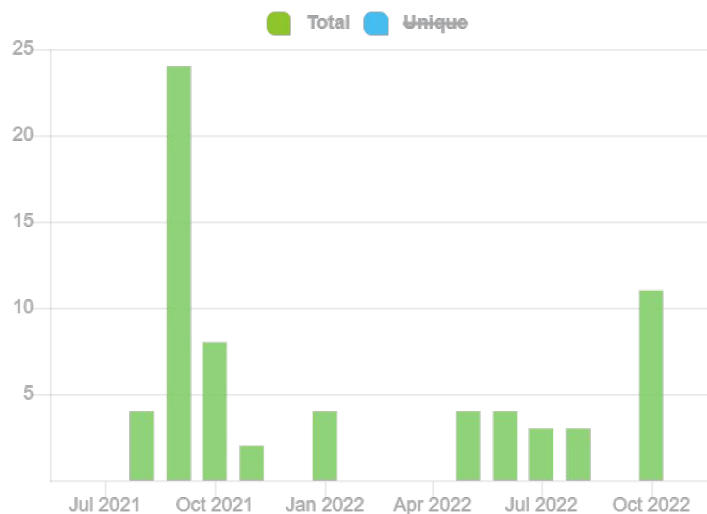
Why do museums use QR codes?

It depends! Common uses include:

- (Curatorial) Interpretive material in exhibitions
- (Programming) Informal educational activities
- (Marketing/Visitor Info) Info on wayfinding, upcoming events, donating



What kind of data can you track about usage?



<u>City</u>	<u>Scans</u>	<u>Percentage</u>
Conway	24	35.82
NY	7	10.45
London	6	8.96
Boston	5	7.46
Berlin	4	5.97
Newtown	2	2.99

QR Codes in *Sea as Muse*

Katherine Hajar



Sea as Muse

Through the years, the British...
has produced a collection of...
in the world, and the...
at the...
at the...



Prints by Frances Palmer

Frances Flora Bond Palmer, born in England in 1812, was one of just a few 19th-century American women artists who worked as lithographers. She was the only woman lithographer known to have worked for Nathaniel Currier, who owned a large and successful New York lithography firm. Currier recognized her exceptional talent and skill by including her name on the prints that she drew; most of the artists he employed worked anonymously.

Lithography was a revolutionary printing technique that was perfected at the end of the 18th century. It helped shape a larger, dramatic change in consumer culture and interior design. The process allowed printers to mass-produce multiple copies of a single image at a relatively affordable price. As the technology improved throughout the 19th century, prints became more affordable, allowing more people to have art in their homes.

Maritime prints were very popular in the 19th century and may have been particularly attractive to customers who lived in port cities and towns.



Frances Palmer in 1865, when she was about 53 years old.

Archives of American Art, Smithsonian Institution Archives



When these lithographs were made, color-printing technology had not yet been invented. They were printed in black ink and then hand-colored by young women and girls. Printmakers considered girls of 10 or 12 years old to be particularly good at this detailed work.

Library of Congress, Prints and Photographs Division, LC-DIG-pga-00936



Scan this QR code to
learn more about
Frances Palmer.













THE SILVER VASE
A SILVER VASE
A SILVER VASE



The Case of
Silver Manufacturing



THE SILVER VASE
A SILVER VASE
A SILVER VASE

THE SILVER VASE
A SILVER VASE
A SILVER VASE

THE SILVER VASE
A SILVER VASE
A SILVER VASE

Paul Masson cup, 1968

This is the only modernist trophy in the Museum's collections. It was made by Klaus Murer, shortly after he emigrated to the United States from Switzerland. The sailboats, the waves below, and the letters on the cup were all cut from a sheet of metal and shaped by hand.

Created for a Star Class sailboat race, it was the first and only trophy that Klaus Murer ever made. He was a jeweler by trade and went on to win several international diamond jewelry competitions. He had a successful jewelry business in San Francisco, California, for over 40 years.

Klaus Murer
Silver and brass

1997.121.2



Scan the QR code to hear Klaus Murer talk about this trophy, his career, and his experiences on the water.



Klaus Murer at home, San Francisco, January 2020.

Photograph by Katherine Hajar



Klaus Murer as a young boy.

Courtesy of Klaus Murer



Klaus Murer as a young man.

Courtesy of Klaus Murer

A Call to Experiment

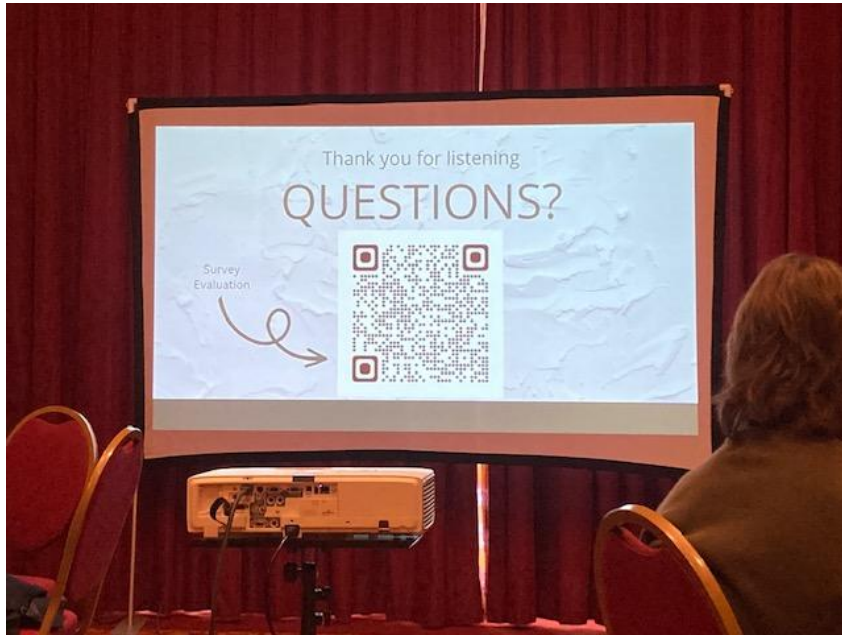
**Evaluation of *Sea as Muse* &
other QR codes at
Mystic Seaport Museum
Karina Wizevich**

Examples from SEMC conference...



At registration: information...at the end of a presentation: survey

Examples from Southwest Museum Conference - 10/24-10/26/22



ENTER TO WIN

\$500

Gift Certificate



Scan the QR code and fill out the form to be entered to win.

No smartphone? No problem!
Use our iPad to enter!

*Winner will be contacted after the show.

By entering to win, you agree to receive promotional emails and other marketing materials from Gaylord Archival. Should you win, Gaylord Archival may use your first name and organization in announcements.

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Preserve Today. Share Tomorrow.

Following a panel/survey...at a vendor's booth: raffle entry!

What we evaluated



- **Visitor experience**
- **Use of QR codes**
- **Use of other interpretive elements**



***Sea as Muse* explores how the sea provided inspiration for decorative arts in the late 19th and early 20th centuries.**





	Look @ object(s)?	Read panel?	Used QR (who?)	Watched video
P1: Staffordshire				
P2: Dec arts intro				
P: Frances Palmer (QR)				
P3: Astor Cup				
P4: Cluster of design				
P: Design Inspiration (QR)				
P5: Neptune/Livonia (VIDEO)				
P6: Reader rail trophy (arm to left)				
P7: Reader rail trophy (flip side of P6)				
P: Palladium				
P8: Reader rail trophy (back side RT arm QR)				
P: Ubaldo Vitali (QR)				
P9: Reader rail trophy (arm to RT)				

Overall how was your experience in this exhibit: Not good Average Good Great

Had you heard anything about this exhibit before you saw it today?

No Yes, if YES, what did you hear? _____

What one thing that you saw here today was especially memorable or interesting?

To what extent did you see these themes come through in the exhibit:

that the objects were inspired by sea life & life at sea Not at all Somewhat A lot

that the objects show design history/genealogies & craft processes Not at all Somewhat A lot

something new about artistic and craft processes Not at all Somewhat A lot

something new about the peoples who created the objects Not at all Somewhat A lot

about decorative arts by looking closely at the object's details Not at all Somewhat A lot

Mystic Seaport Museum is experimenting with QR codes in this exhibit that look like this:



Did you use them? Yes, all of them Yes, some of them No, none of them

If NO, why is that?

- I didn't see them
- I didn't have time
- I wasn't interested

If YES, did they add to your experience?

- Yes, the content was interesting
- Yes, the content was helpful
- No, the content was not interesting
- I don't know how they work
- No, the content was not helpful
- I don't like using QR codes
- No, they didn't work well

Do you use QR codes in any other setting (e.g. restaurant, advertisement, etc.)

- Yes, usually Yes, if I need to No, I don't like using them anywhere
-





What we learned

- do not use QR codes on the text panels
- do watch the videos that are running
- look at the objects
- read labels
- like the mocked up workbench (like a diorama)



Why don't visitors use QR codes?



- know what they are and don't want to use them
 - already enough info in the galleries
 - want to experience the objects on their own
 - don't like to take out phone in museums
 - security concerns using their own device
- some don't know what they are

Another survey: where might visitors use QR codes at MSM?

- there must be a NEED for QR (visitors will not use them voluntarily)
 - Information about logistics
 - at the entrance to the Seaport
 - outside on the grounds
 - outdoor spaces
 - buildings not be already interpreted
-

QR code usage across Mystic Seaport Museum

Seasonal trends

Is there an interpretive or Logistical “need?”

	September 2021	January 2021	April 2022	July 2022	Totals over past 12 months
Sea As Muse (as whole - 5 QR codes)	59	15	57	45	376
Oyster House	113	6	137	185	1233
Cooperage	178	17	96	89	1238
Bank	145	9	0	218	990
LA Dunton	146	3	85	113	1165

Factors determining QR code usage

- Location
- Visitation rates
- Seasonality
- Interpretive context
- “Needed” information



A Call to Experiment

**Evaluation of Hunt for History &
QR codes at the James Monroe
Museum
Caroline Ralston**

James Monroe Museum

Fredericksburg, VA (1.5 hours from Washington, D.C.)

National Historic Landmark on the site of James Monroe's Law Office

Family-friendly: Most common reason for visiting James Monroe Museum is "something to do with my kids/grandchildren"

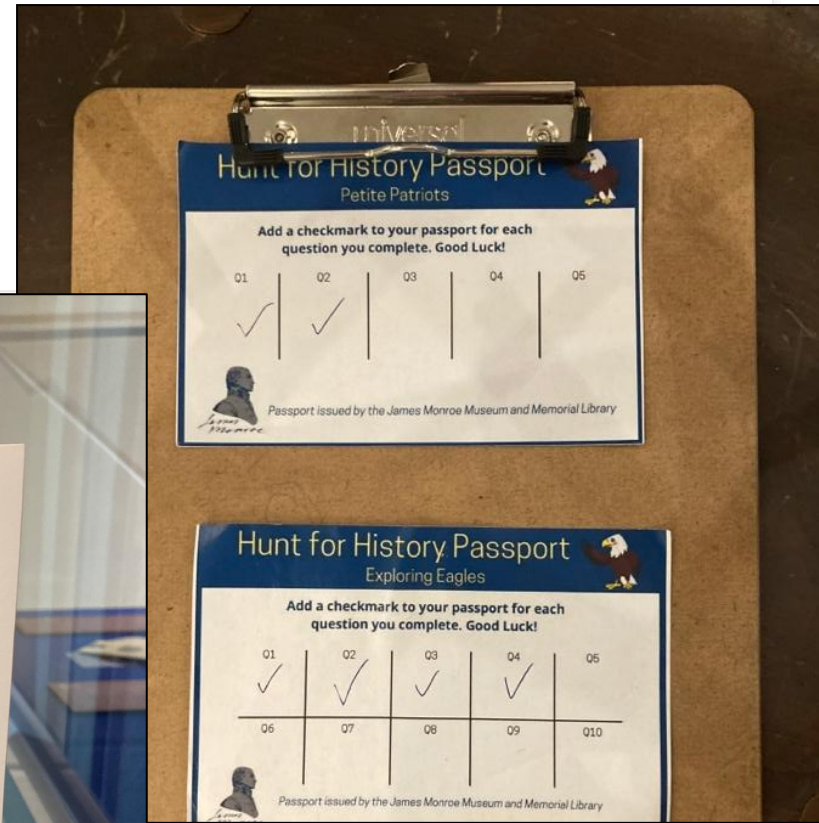
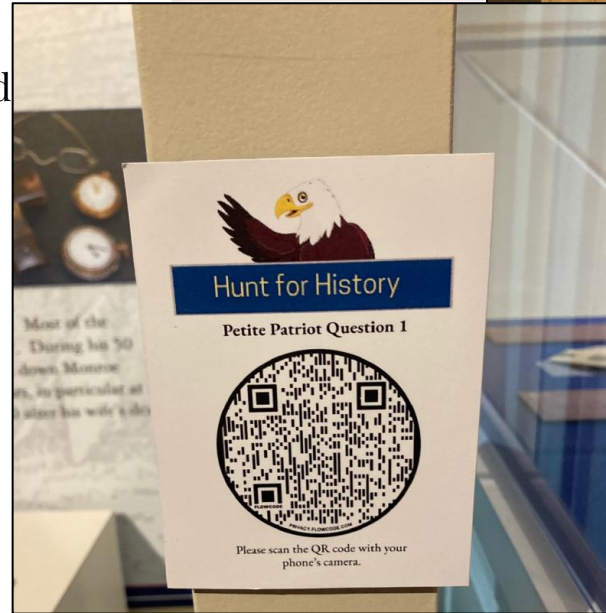
© 2021 University of Mary Washington



"...dedicated to the study, interpretation and presentation of the life and times of the fifth President of the United States."

Background on Hunt for History

- Museum-wide QR code scavenger hunt developed in 2021
- Interactive, safe option for engaging children in the galleries
- Focuses on the life of James Monroe
- Exploring Eagle and Petite Patriot versions



Background on Hunt for History

Question 1: Look around the room. How many plates can you find?



10

2

5

6

Two types of plates are on display in this room. Dinner service plates would be used to serve the main meal, while dessert plates were only used for serving dessert. The Monroes had multiple sets of each, as some were only used for official state dinners in the White House, while others were reserved for personal use by the family.

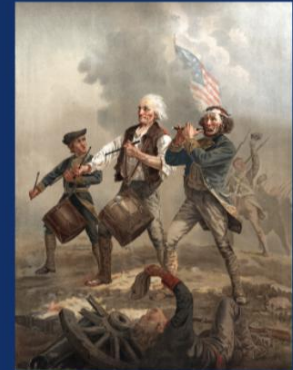


Question 2



Move around a bit! March along to the beat of "Yankee Doodle," a popular song during the American Revolution!

Click the Library of Congress link below to play!
<https://www.loc.gov/item/ihas.100010448/>



"Yankee Doodle" was originally written to mock colonists who fought alongside the British during the French and Indian War (1756-1763), but during the American Revolution, colonists reclaimed the song as their own and it became a popular patriotic song!

Once you're done, put a checkmark in the Q2 box on your passport to show your progress!

Preliminary Literature Review



Lessman-Moss, Janice

#426, *Random Walk Blue*
©2013
Linen, shifted weft ikat, digital jacquard weaving
56x54"



(Above) Close-up view of a QR code with the actual artwork for @Infinitum.

(Left) Installation view of 2015 @Infinitum at Kent State Museum.

From "Mediating Museum Display and Technology: A Case Study of an International Exhibition Incorporating QR Codes" by V. A. Dressler, & K. Kan, 2018, *Journal of Museum Education*, 43(2), pp. 160–161. Copyright by James Williams.

Preliminary Literature Review

View of the systems-based display of the potted specimens at the Anatomy Resource Centre in the Lee Kong Chian School of Medicine in Singapore.
From “Scan and Learn: Quick Response Code Enabled Museum for Mobile Learning of Anatomy and Pathology” by S. R. Mogali et al., Nov/Dec 2019, *Anatomical Sciences Education* 12(6), p. 666.



Goals for Evaluation

Remedial

Assess impact of Hunt for History (QR codes, in particular)

- Find out what is and is not working with the scavenger hunt

Summative

Provide knowledge that informs future studies on Hunt for History

- Contribute to scholarly body of knowledge on uses of QR codes in museums



Areas of Study

Interpersonal Interactions

Flow of Activity

Accessibility/Interaction
with QR codes

Motivations for Visiting

Impact of Activity



METHODS & CORRESPONDING FRAMING QUESTIONS	Detailed Observations	Semi-structured Exit Interview	Post-visit questionnaire	Museum Guide Survey
Interpersonal Interactions (Q1)	X		X	X
Flow of Activity (Q2)	X		X	
Accessibility/Interaction with QR Codes (Q3)	X		X	X
Motivations for Visiting (Q4)			X	
Impact of Activity (Q5)		X	X	X

Methodology (Including Challenges & Limitations)



Primary Findings

- The Hunt for History scavenger hunt aligns with family-friendly appeal of museum
- Most families had positive experiences with scavenger hunt and appreciated using technology in the museum
- Easy access to the internet was paramount for enjoyment
- Families were initially confused about where and how to start scavenger hunt



Interaction with QR Codes

“The [Hunt for History] is done if both parents and kids are enthusiastic about doing it. I have not seen instances of adults successfully talking reluctant kids into doing the [Hunt for History].”
 ---Museum Guide

How often did you find yourself (or other adults in your group) doing the following behaviors during your visit?

Scanning the QR Codes

Checking off stops on the Passport

Instructing, directing, or guiding the child/children

Engaging in an activity alongside the child/children

Adult Behaviors Observed*	Frequency of Behavior (use tally marks)	Child Behaviors Observed	Frequency of Behavior (use tally marks)
Scans QR Code		Scans QR Code	
Instructs, directs and/or coaches child in the activity (ex. reads directions, selects order of stops, decides when to begin/end a stop)		Reads OR looks at instructions on phone	
Engages in activity alongside the child (ex. answers questions, dances, watches videos)		Tries out activity (ex. answers questions, dances, watches videos)	
Provides verbal encouragement to child (ex. provides reassurance, compliments, positive reinforcement)		Asks the adult a question(s)	
Reads OR looks at object/wall label independently		Reads OR looks at object/wall label	
Points out (verbally or physically) an object or label		Points out (verbally or physically) an object or label	
Checks off stop on Passport		Checks off stop on Passport	

Opportunities for Improving QR Code Activities

Technology updates OR museum guide helps connect visitors to internet

Offer paper version of scavenger hunt

Denote stops by theme rather than numbers

Provide quick orientation session on how to use QR codes

Suggestions for Future Evaluative Work

(At The James Monroe Museum and beyond)

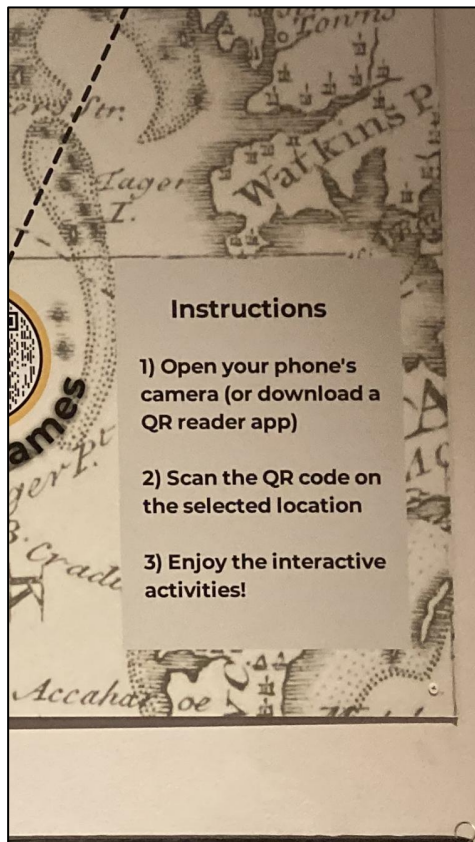
Compare

Compare use of paper version of scavenger hunt with QR code version

Explore

Explore impact of QR codes on experiences of middle and high schoolers

2022 Updates



Instructions

- 1) Open your phone's camera (or download a QR reader app)
- 2) Scan the QR code on the selected location
- 3) Enjoy the interactive activities!

The panel is set against a background of a historical map with various place names like 'Watkins P.', 'Accaha', and 'Crade'.



The exhibit booth features a large wall map titled "Hands-on History: A trip with Elizabeth & Maria Monroe". The map highlights several locations with QR codes: "Start Here", "Capital District", "Gaps & Carries", and "Loops & Clips". A small sign in the top right corner reads: "Thank you to our 2021-2022 Rowley Scholars, Chloe Weir and Katharine Bogen, for putting this corner together!".

Other interactive elements include:


- Modern Monroes:** A sign encouraging visitors to use a book app to explore more stories.
- Snapchat Lens:** A sign with a QR code and the text "Try on our TikTok Net Filter".
- hiSTORY Video:** A sign with a QR code and the text "Scan the QR code on the selected location".
- Jamie the Eagle:** A sign with an eagle illustration and the text "Let's explore how technology and history can work together!".
- Quilting Corner:** A sign with a QR code and the text "Let's explore how technology and history can work together!".

The booth is furnished with two blue armchairs on a red carpet, a small table, and a mannequin of a person in historical attire.

2022 Updates

Take some of the handouts below and find yourself learning and playing with the Monroe family!

LA BELLE CATHERINE: LAZY STEPS
CATHY'S ELEGANT COUNTRY DANCE
Directions: Would you like to remember this dance?
Scan the QR code and practice at home!



Key words to remember:
Set- step right, left, right, left
Heaves- The bow and curtsy
Can dance- walking around the group to the top of the line

CIPHER CODE
Directions: James Monroe often used a code that he created to send important messages to his friends! Solve the Cipher below by using the key on the back of this page.

Hint: #777 = British

1. 146. 713. 1551. 501.
2. 777. 687.
3. 1529. 1546. 1516. 1078.

RIDDLE ME THIS
Directions: Can you solve these riddles? Each riddle has a hint to help you solve the riddle. Think, think and answer on the line!

1. What can be seen falling down but never crying?
Answer: _____
2. Two bottles have I, though both joined in one, the colder I stand, the faster I run.
Answer: _____
3. What force and strength could not get through, I with a porcupine back to die and many in the streets would rather have I not as a shield on hand.
Answer: _____

Beats:
We dwell in cottages of stone and labor much for little gain.
Answer: _____


TOYS & GAMES
Directions: Match the toy with the right illustration!

- Plastic Truck
- Cap and ball
- Colorful Child
- Legs
- Cap
- Football Game

Modern Monroes


Have you ever wondered what you would look like if you lived in James Monroe's time? Do you want to hear stories that relate to history? Here's your chance to do both! Scan the codes below to check out our other educational resources!

Snapchat Lens




Try on our Tricorn Hat filter!

hiSTORY Video



Scan me on your camera or QR app!

Let's explore how technology and history can work together!



Jamie the Eagle

The Big Picture

Putting it all together

Know your audience

Identify a NEED for QR codes

Understand your museum's A/V capabilities

Provide visitors with easy access to the internet

Scaffold visitor interaction with QR codes

Include paper versions of QR code content

You don't need a lot of money to experiment!

How are QR codes and content created?


- An all-in-one program (ThingLink)
- An independent QR code generator (Flowcode, QR.io)
- Right-click on a webpage and select “Create QR Code for this Page” (using Google Chrome Browser)

Questions to consider:

- How much money do you want to spend?
- Will your content need to be updated?
- What type of content are you linking?
- Do you want to track usage?

Examples!

← **HUB** Collections Classifications App



FRONT

Chinese Historical Society of America

Game of Death Jumpsuit

Textile

[Chinese Historical Society of America](#)

Description
Jumpsuit (mail order replica) used in the 1972 movie Game of Death

Entry/Object ID
L2021.2.001

Context
At 5 feet 7-1/2 inches, Bruce Lee's lean frame was unique. CHSA ordered a custom made mannequin to fit the yellow jumpsuit. The pose selected is similar to when Bruce was sparring with Kareem Abdul Jabbar.

Dimensions

Height	Width
56 in	55 in
Depth	
1/4 in	

Intake
Loan In
L2021.2

Behavioral Profiles

Three behavioral profiles emerged:

1. Active Adult/Less Active Child
2. Active Child/Less Active Adult
3. Less Active Adult/Less Active Child

COMPARATIVE BEHAVIOR CHART ACROSS GROUPS (Gallery 1)	Group 1 Adult Frequency	Group 1 Child Frequency (aged 6-9)	Group 2 Adult Frequency	Group 2 Child Frequency (aged 6-9)	Group 3 Adult Frequency	Group 3 Child Frequency (Teen)
Scans QR Code	2	0	0	2	0	0
Adult Instructs/Directs/Coaches Child OR Child reads/looks at instructions	3	1	2	2	1	0
Engages in Activity	1	1	1	2	0	0
Adult Provides Encouragement OR Child asks question	2	0	1	0	0	1
Reads/looks at object/wall label (not H4H related)	0	3	2	3	3	4
Points out object/label (not H4H related)	2	2	0	1	2	2
Checks off stop	1	0	0	2	0	0
Sum of All Behaviors	11	7	6	12	6	7