Making Music in the Museum: Creative Hands-On Music Exhibits

Ted Nordlander - Argyle Design
Sherlock Terry - The Montshire Museum of Science
Tom Durkin - Children’s Creativity Museum
Clay Center for the Arts & Sciences, Charleston, WV
BIG IDEAS

- Make music together
- Different ways to make Music
- Sound good together
APPROACHES

- SPACE
- CHOICE OF INSTRUMENTS
- SET A TONAL AND RHYTHMIC STRUCTURE
Sonic Box

280 SQ FT

1. PLAN
   Scale: 1/2" = 1'-0"

- Carpet Flooring on Removable Panels
- Tubular Bells
- 2' x 4' Wood Frame Construction with Acoustical Interior Walls & Plan Exterior
- Hardwood Threshold at Door, Fixed with Carpet Tape
- Voice Transformer
- Suggested Break Lines, W/ Roto Lock System
- Klang Klang Klang Instruments 1 & 2
- Kling Klang Discs
- Bell Tree Mouted to Wall

http://www.klingklangdiscs.com/
details-detail.html?I=00000
Klang Klang Klang Instruments 1 & 2
Klang Klang Discs
Bell Tree Mounted to Wall
Harmonic Structure

C major pentatonic scale

1 2 3 5 6 1 (Tonic)
Rhythmic Structure
LESSONS LEARNED

- Room acoustic/Sound-absorption
- How much programming?
- Signage & Prompts
- Variety vs. Simplicity
- Easy ways to integrate off-the-shelf technologies
Ted Nordlander
Exhibit Developer/Designer

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Using real musical instruments in exhibits

SHERLOCK TERRY
DIRECTOR OF EXHIBITS
Making Music (photos of exhibition)

- 2500 sq ft
- Big idea

*find MM by the numbers doc and Marcos video
Scientists divide percussion instruments into two groups. One group includes instruments with stretched heads like a drum. The second group includes instruments in which a rigid material like a wooden bar vibrates and makes sound. When percussion instruments are hit, shaken, knocked, scraped, or even stomped, part of the instrument vibrates and makes sound.
Meet a tank drum maker

Vermont artist Tim Danykiew makes drums out of used propane tanks. He loves that beautiful sounds can be made from objects people usually throw away. To make a drum, he cuts apart an empty propane tank and saves the top and bottom pieces. Next he cuts tabs into the steel and welds the pieces back together. Tim polishes the drum last. Now a new drum is ready to play.
How the exhibition is organized (see notes!!!)

- Number of exhibits
- How exhibition is organized
- Overview of development process (research, pilot, prototype)

*Find MM by the numbers doc and Marcos video*
Why use musical instruments in exhibits?

- Familiarity
- Community knowledge
- Real materials
- Aesthetics
- Broad appeal
- Cultural connections
- Available resources
Challenges of musical instruments in exhibits

- Limiting adjustments
- Broadening context
- Real materials
- Entry points
- Noise
- Goldilocks options
How to select musical instruments for exhibits

- Durable
- Replaceable
- Easy to succeed
- Sanitary
- Sized to audience
- Maintainable
- High quality
How to select musical instruments for exhibits

● How will it be mounted?
● How will adjustments be limited?
● Can the sound be controlled?
● How much maintenance will it take?
● How much can it be modified and still feel like the instrument?
Using real musical instruments in exhibits

SHERLOCK TERRY
DIRECTOR OF EXHIBITS
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Making Music in Museums

Sound Garden & IMLS Making Music Studio

Tomas Durkin
Exhibits Development Manager
Children’s Creativity Museum
San Francisco, CA
105,000 annual visitors
Previous Music Studio Exhibit
IMLS Making Music Studio

- Originally applied in 2016
- Reapplied in 2017, awarded the grant in 2018
- Worked with external developer, Weldon Exhibits, to create exhibit narrative, major exhibit components, and concept art
- Schedule to open May 18, 2019
Where can music come from?

- Nature
- City Sounds
- Repurposed materials
- Musical Instruments
Sound Garden
Bee-Boppers

- PVC Aerophone
- HDPE bee mallets with rubber slipper pads.
- Plywood stand and flowers
Percussive Planters

- Assortment of alarm bells, dinner and other antique bells
- Repurposed Fairy Bells
- Fabricated petals and planter boxes
- Mallets made from caster wheels, threaded rod, vinyl tubing, and shower curtain parts
Percussion Trellis

- Themed to look like a garden trellis wall
- Tuned metal pipes repurposed from aluminum tent poles
- Hubcaps, serving trays, and other found objects
- Fabricated Metal
Fast forward to 2018
What if visitors could make their own instruments?
MAKE A JINGLER

PARTS:
- Strap - String, wire, or pipe cleaner
- Jingles - Small objects with holes in them, like bells, beads, and washers

TIPS:
- String objects onto string or wire and tie
- Attach them to other things you can hold

QUESTIONS:
- What do the different objects sound like when they hit against each other?
- Will you wear your jingler or hold it?

MAKE A CLACKER

INGREDIENTS:
- Two objects - Like bottle tops or metal bits
- Cardboard strip - Or other durable material
- Tape - To attach the objects to the cardboard

TIPS:
- Objects should be taped to the same side of the cardboard so they touch when you fold it in half.

QUESTIONS:
- What materials make the best sound?
- What helps them open and close?
Music Popup - Summer 2018 Prototyping
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We got the grant! Now what?
Drum Pod

- Roland Handsonic HPD-20
- Can sound like traditional drum set, steel drums, bongos, congas, and other world music percussion
Synth Pod

- Linnstrument 128
- Can sound like pianos, electronic synthesizers, electric guitar, horns, strings, and other orchestral instruments
Vocal Pod

- Roland VT-4 Vocal Transformers
- Can change voice to add reverb, harmonies, auto-tune, and change pitch
Progress!
Thank you!
And wish us luck!