Changing Our World:

Millennials Helping Others Understand Historic Science at Science Museums

> Science Communication and Science Museums: Prospects and New Ideas



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May 18, 2017

The Bradbury Science Museum



Mission: to stimulate interest in and enthusiasm for science, technology, engineering, and mathematics and promote public understanding and appreciation of Los Alamos National Laboratory







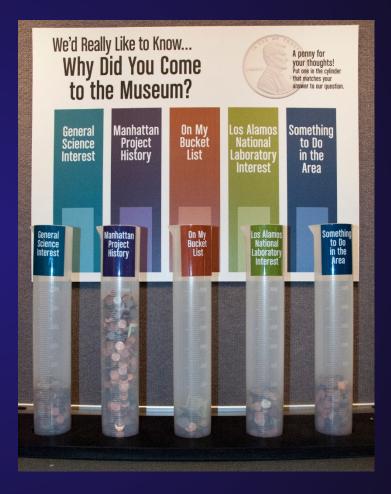
Who comes to the Bradbury now?



For our Adult Visitors, surveys show:

33% over age 65 44% between 45 and 65 years old 9% between 35 and 44 years old

14% are millennials, 34 to 18 years old



92% visit our History Gallery

That's too few millennials!





We want to increase their visits and engagement. Our strategy is to help them learn the way they want to learn.

Recent research on millennials visiting U.S. museums

- Millennials top 3 destinations in 2016 were zoos (55%), museums (49%) and theme parks (48%)
- They composed a larger share of aggregate 2016 attraction visitation at 42%, up 9% from last year.
- 91% will most likely visit an attraction in 2017.
- They have the highest intent to visit "far more attractions" in 2017 from groups surveyed (Millennials, GenXers, Boomers, Matures).

Museums are in a great position to attract and serve millennials

More recent research on millennials visiting museums

- They most likely will maintain the largest share of attraction visitation, forecasted at 44.7%.
- 73% traveled more than 50 miles for leisure in 2016, and their intent to visit grows to 81.5% in 2017.
- They are the generation most influenced by attraction technology, with
 - 59% saying it makes them more likely to visit,
 - 44% saying it makes them more likely to stay longer,
 - 24% saying it makes them more likely to spend more money.

Data from PGAV Destination's "2017 Voice of the Visitor: Annual Outlook on the Attractions Industry"

We need to ensure our museums communicate well with millennials

Children are our visitors, too.





For our youth visitors, surveys show: 33% are between 13 and 17 years old 44% are between 8 and 12 years old 15% are between 4 and 7 years old 8% are younger than 4 years old

We offer our visitors many ways to learn.



More than 60 hands-on exhibits allow you to explore everything from the fundamentals of radiation to biofuel research to the contribution the Lab makes in monitoring nuclear activities around the world...to name a few

We work with millennials to create new experiences.



Taking the plunge: partnering with an entire class





PICT: Program for Interactive Cultural Technology at NM Highlands University A semester-long class involving 12 students, 2 faculty, and 6 mentors. And us! Museum and other Lab staff provided the content: photos, artifacts, script, reviews, direction...we became the real-life clients to their "design firm."

The project: Manhattan Project National Historical Park



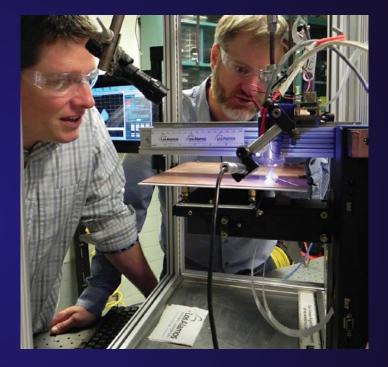
Los Alamos, NM Oak Ridge, TN Hanford, WA



The park opened in November, 2015 but...Los Alamos park buildings are still in secure areas; how can we help visitors experience them today?

An approach that helps many.

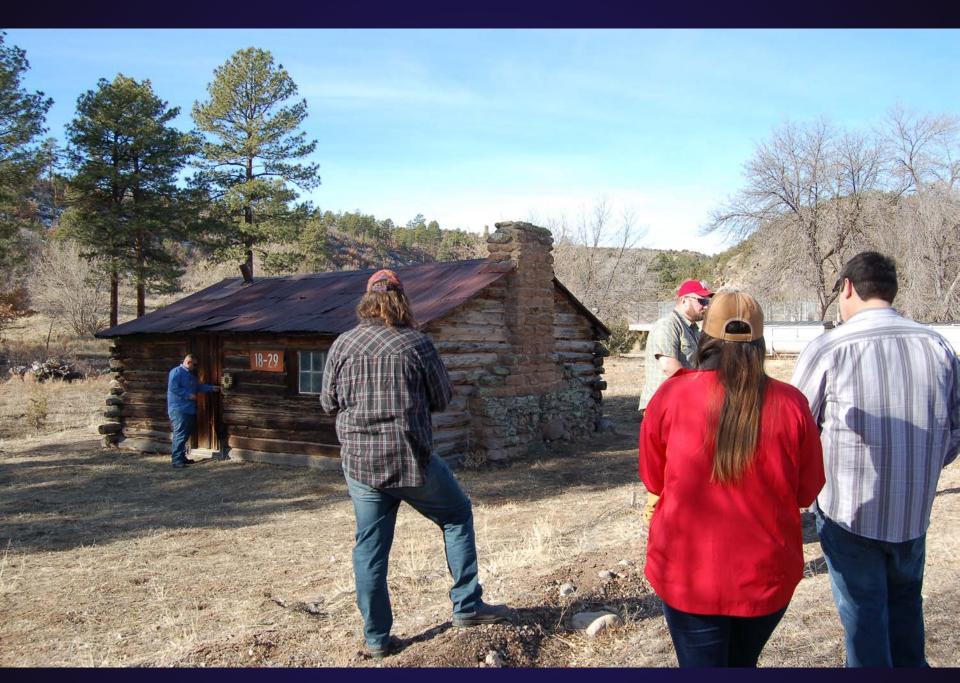




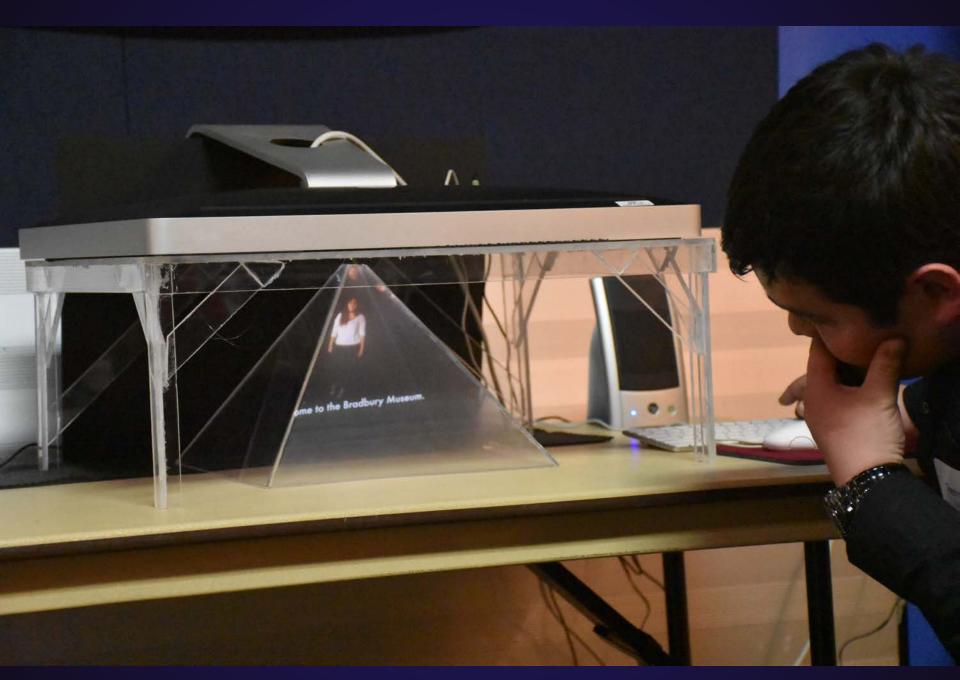


Memory of WWII is rapidly fading, and the importance of understanding how our world was shaped by it is key to understanding Los Alamos National Lab. Also, the National Park Service is striving to become relevant to today's youth.









Big as life: bring the buildings inside



Active: Hunt for clues and rewards





Constructed in 1946, this building supported citicality research. On May 21, 1946, a criticality accident counted here during an experiment known as "tickling the dragon's tail." This accident led to the death of scientist Louis Slotin a few days later.

WHO WAS LOUIS SLOTIN?

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Helen Satch Dunham Cowan

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DOB: 1920 Physical Chemist

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Helen "Satch" Dunham Cowan

was a physical chemist at the Metallurgical Lab at the University of Chicago. Satch was one of a coterie of pioneering women scientists during WWII and spent a long, professional career immersed in scientific work at the Los Alamos National Laboratory from 1945 to 1980.

The fourth of five children of Charley Dunham and Della Lindley Dunham, Satch was a petite woman with a seemingly over-sized soul, penetrating eyes, and a thousand-watt smile. She grew up on a farm in Callao, Missouri and eventually attended Central Methodist University where she earned a B.S. in physical chemistry.





While undertaking graduate studies and studying the physical properties of plutonium in solution at the University of Chicago, she was recruited to work on a secret military project in New Mexico. It would be an invitation to witness historic events. Satch was inspired by her work and did it as she did everything in her life, with commitment, enthusiasm and integrity:

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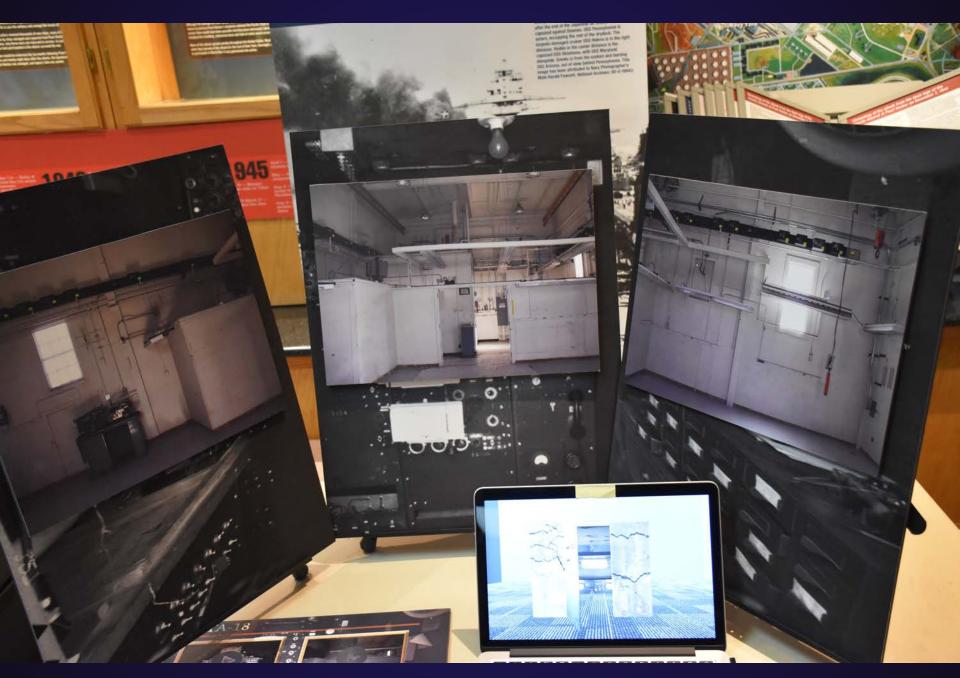
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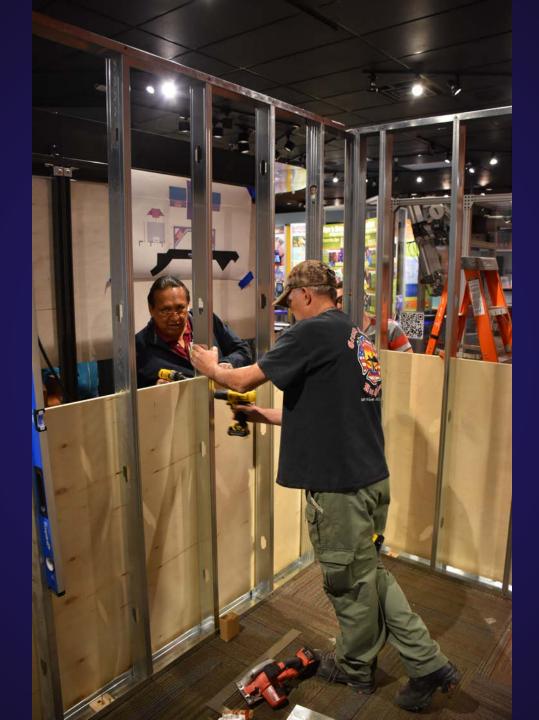
BACK

Immersive: Park Buildings and their times



Driven by the desire to experience, the students are making historic buildings not yet able to be visited accessible through 360° video and modeling. The experience incorporates sight, touch, sound, and smell.





Thank you for the opportunity to be here and participate!