



Your Presenter Today Is
Stuart Smolkin
WA5EYI

The Asheville Radio Museum

What's New?



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Origins

Carl Smith, N4AA
Dxing Magazine Editor

The Museum Today

We
AMAZE!

We EDUCATE!

[Pop Quiz](#)

We
FASCINATE!

Pop Quiz We Use to Build Interest

Which of These Do NOT Depend on Radio?

Cell phones?

GPS systems?

Wireless home internet routers?

Bluetooth wireless speakers?

Over the air television; satellite TV?

Apple Pay and Android Pay?

Touchless transfer of data between two cell phones?

Automobile remotes (locking, unlocking, starting)?

Drive through toll booths?

Radar systems for air traffic control?

*And the correct answer is... they **ALL** depend on radio waves!*

[BACK](#)

Return

NPR Story by Helen Chickering

[Click here](#)
to listen
online

WNC Hidden Attraction: Asheville Radio Museum

By HELEN CHICKERING - APR 26, 2017




Share

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Email



 VIEW SLIDESHOW 1 of 5

Radio as a work of art, Atwater Kent model from the 1930s.

Return


PBS – North Carolina Weekend TV Documentary ([click here](#) to view)



What Visitors Are Saying

Asheville Radio Museum

Elm Building, 340 Victoria Rd Room 315, Asheville, NC

 Write a review

5.0 ★★★★★ 7 reviews 

Sort by: Most relevant ▼



Blake Crosby

3 reviews

★★★★★ 2 weeks ago

As a ham radio operator, I was interested to visit the Asheville Radio Museum to check out their vintage equipment. They have a lot of cool things packed into a small space. Our guide Ron was very friendly and knowledgeable. We spent over an hour checking out the equipment and learning the stories behind them. I would definitely recommend visiting if you have interest in radio or vintage technology.



Reply



Like

What Visitors Are Saying




Cameron Van Dyke

1 review

★★★★★ 5 months ago

Awesome visit at the radio museum!! Our docent spent an hour with us sharing the details of the most interesting radio phenomena. We had our 12 year old with us and spent much attention engaging him and showing him the science behind the technology. Thanks!!!

← Reply  1



Tabitha Hunter

2 reviews

★★★★★ 5 months ago

A wonderful experience. The gentleman was very knowledgeable and there was an abundance of radios and Morse code machines. There was even hands-on learning. It was very educational and I recommend it to anyone!



Hank Hanburger

1 review

★★★★★ 10 months ago

What a great opportunity to see antique wireless equipment through to modern day amateur (ham) radio equipment and learn of the history of early broadcasting and radio communications. Although small in size, this museum is rich in resources and equipment.

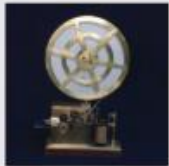
Our guide, Stuart, was exceedingly knowledgeable and took pains to include everyone in our group in his explanations. Couldn't ask for a better tour.

So... What's New?

Radio Wave Wizardry!

They Empower Our Lives!

Learn and See How at the
Asheville Radio Museum



WHAT'S YOUR INTEREST?

- * Hearing fascinating history
 - * Seeing beautiful antiques
 - * Learning amazing science
 - * Experimenting hands-on
 - * Listening to working antiques
 - * Viewing decades of ham radio gear
- ALL THIS AND MORE!**

New Museum Flyer

SEE, HEAR AND IMAGINE THE HISTORY

See early "crystal" radios, 1920s farm radios, 1930s deco radios and beautiful console radios broadcasting everything from gospel to Elvis. Guaranteed to spark the imagination of young and old!



Hear fascinating stories of how radio revolutionized 1920s rural America and farm life. Listen to famous early radio shows and news broadcasts.

Imagine being gathered around the radio with your family sharing news and fun. Imagine police getting their first radios in the 1930s. Picture Germans risking their lives using Nazi propaganda radios to hear Allied stations. All this and much more!



UNDERSTAND THE SCIENCE

Radio waves travel at 186,000 miles per second... going billions of miles through the vacuum of space. And, they are *self-perpetuating*! Did you ever wonder how a cell phone works? GPS? A wireless internet router? A Bluetooth speaker? Radar? A remote car door opener? Photos from outer space?



They all use radio! We'll explain how.

HANDS ON ACTIVITIES

Spell out your name in Morse Code using a real telegraph key.



Watch as an antique transmitter creates actual radio waves by making electric sparks. And, if one of our amateur ("ham") radio operators is present, talk to another ham using our museum's radio station, live and over the air!

THE HAM RADIO HOBBY

Today, amateur radio operators do amazing things – bouncing signals off satellites, connecting through the internet, and using modern new equipment such as Software Defined Radio (SDR). They provide vital communication during emergencies.

Learn how to join more than eight hundred thousand hams worldwide. Get your own unique broadcasting license and call sign!



GREAT FAMILY FUN

Grandparents can re-live wonderful memories. Young children love the hands on. Teens (especially STEM students) like seeing and learning. Parents enjoy the fascinating stories while seeing the pleasure in the eyes of the grandparents and children. We guarantee to amaze, educate and fascinate! Note to veterans: Please come share your stories!

WHAT VISITORS SAY FIVE STARS!

★★★★★

"Awesome visit at the radio museum!! Our docent spent an hour with us sharing the details of the most interesting radio phenomena. We had our 12 year old with us and he spent much attention engaging him and showing him the science behind the technology. Thanks!!!"

"A wonderful experience. It was very educational and I recommend it to anyone!"

"The visit to the Asheville Radio Museum was a highlight of our North Carolina visit. For those with a love of sound, especially on radios, this will be your holy grail, so don't miss it!"

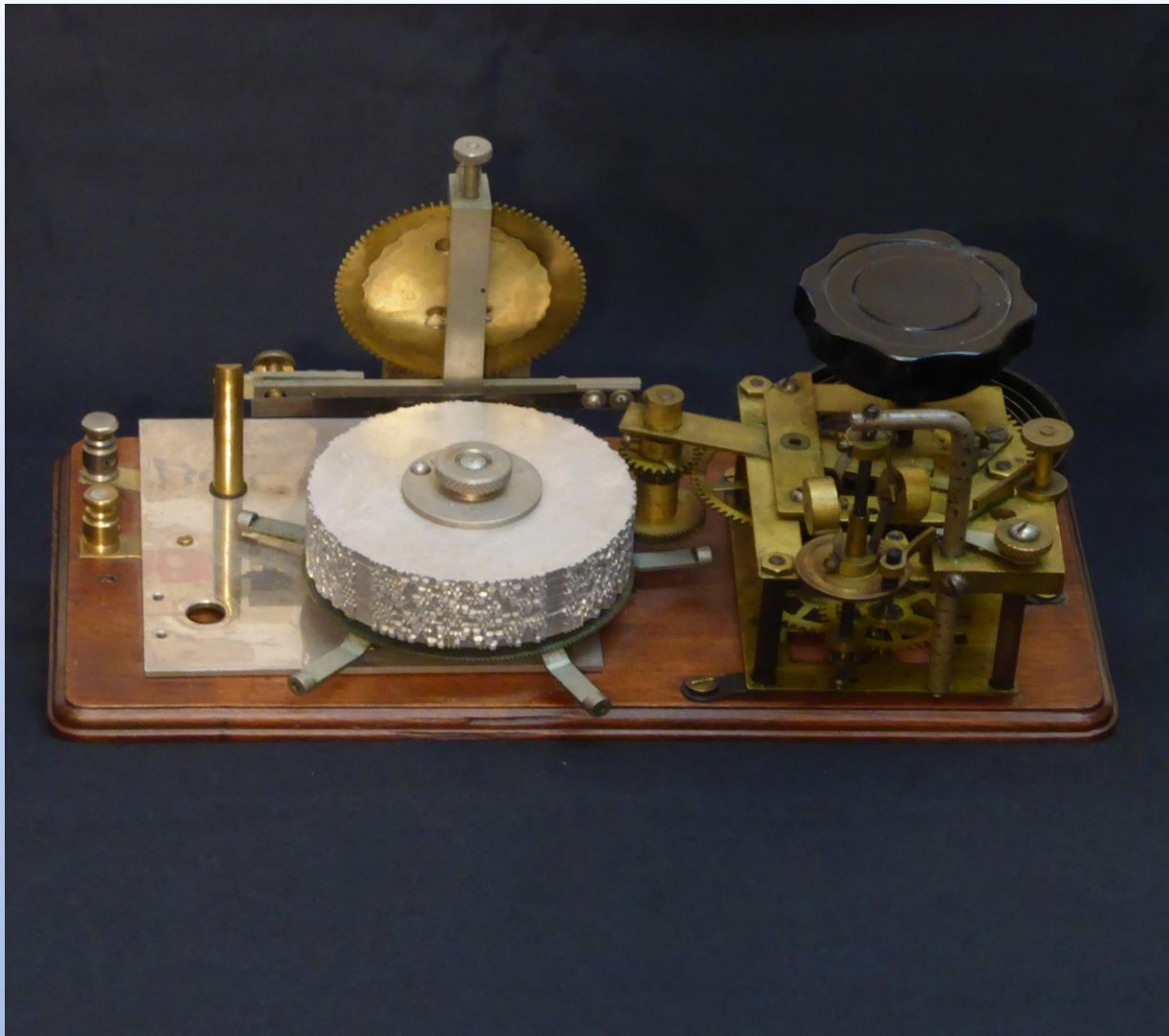
"I was very pleasantly surprised to find an amazing collection of early radios that tell the story of the development of radio. On top of that we received a personal two hour tour with full explanations and demonstrations."



Flyer available online at www.avlradiomuseum.org

Return

Many New Items
for You to See...



Antique Morse Code Practice Machine



100 Year Old Morse Code Recorder Made in Denmark

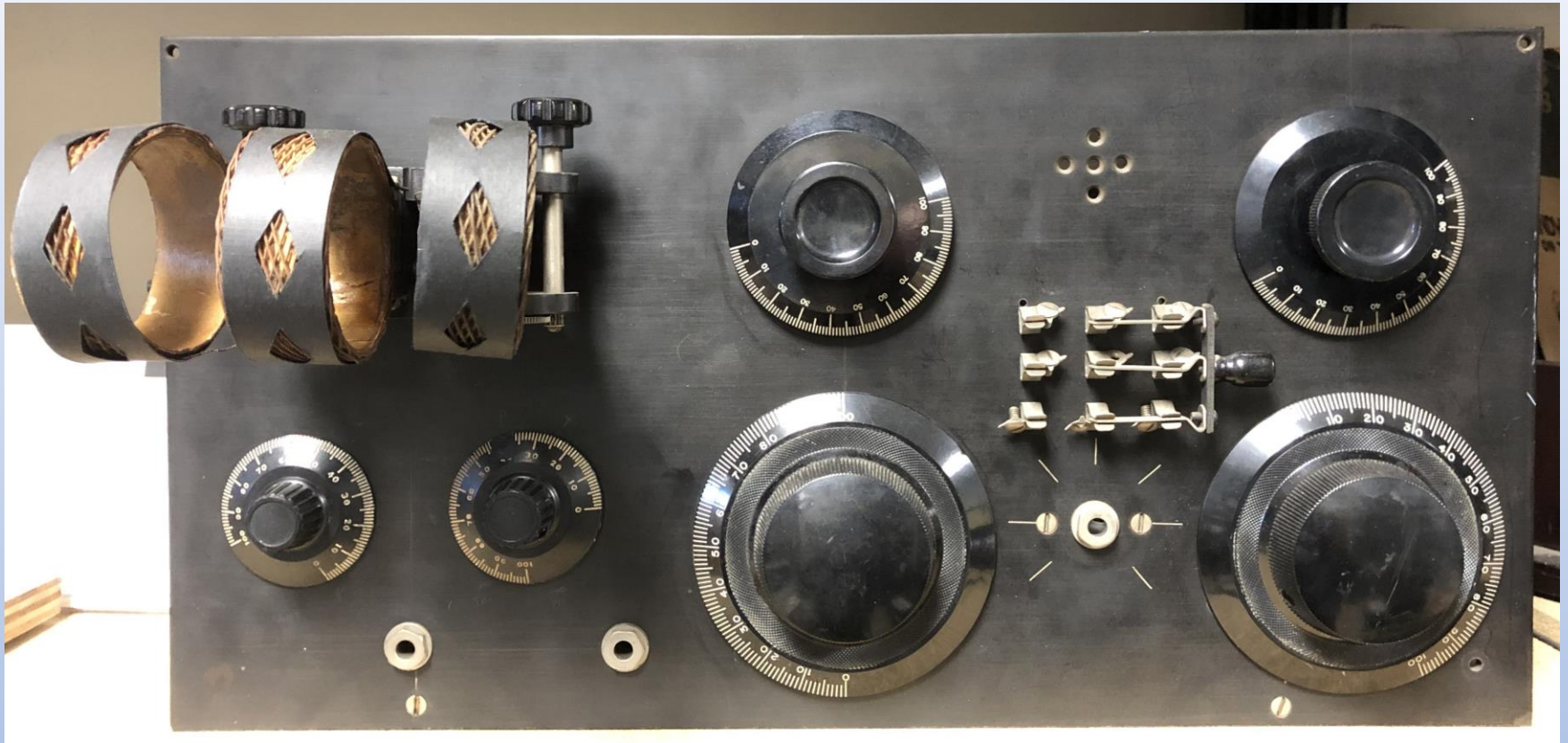


COHERER

Modern Replica of Marconi's Early 1900s
Coherer Receiver



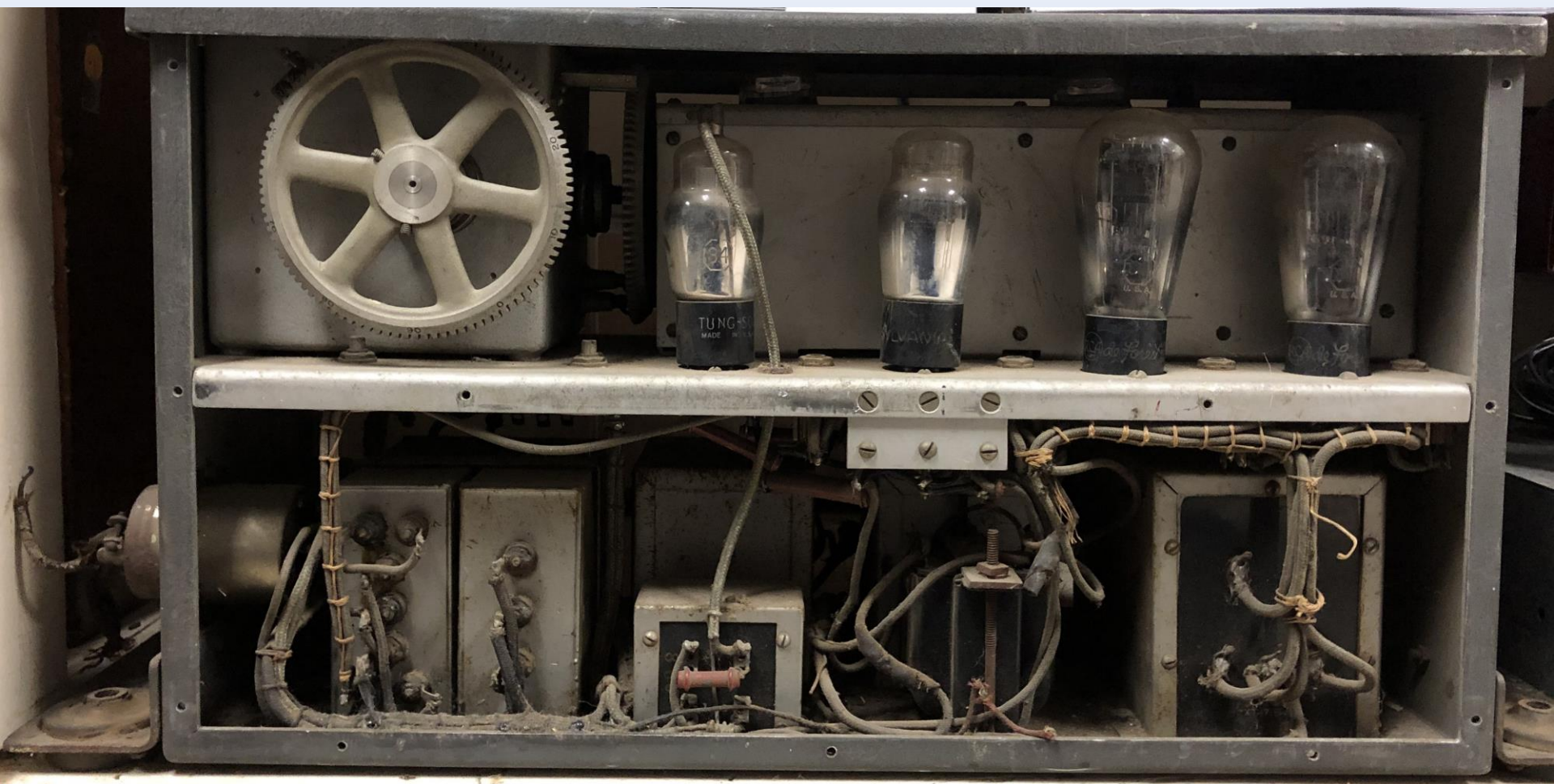
9ZK (9MQ) Albert J. Graham, K.C., Mo.
1916-17



Donated by Elwood Miles – build by his father



Atwater Kent Early 1900s Ignition System
Profits Used to Start Making Radios



Asheville's First Police Car Radio (Circa 1936)



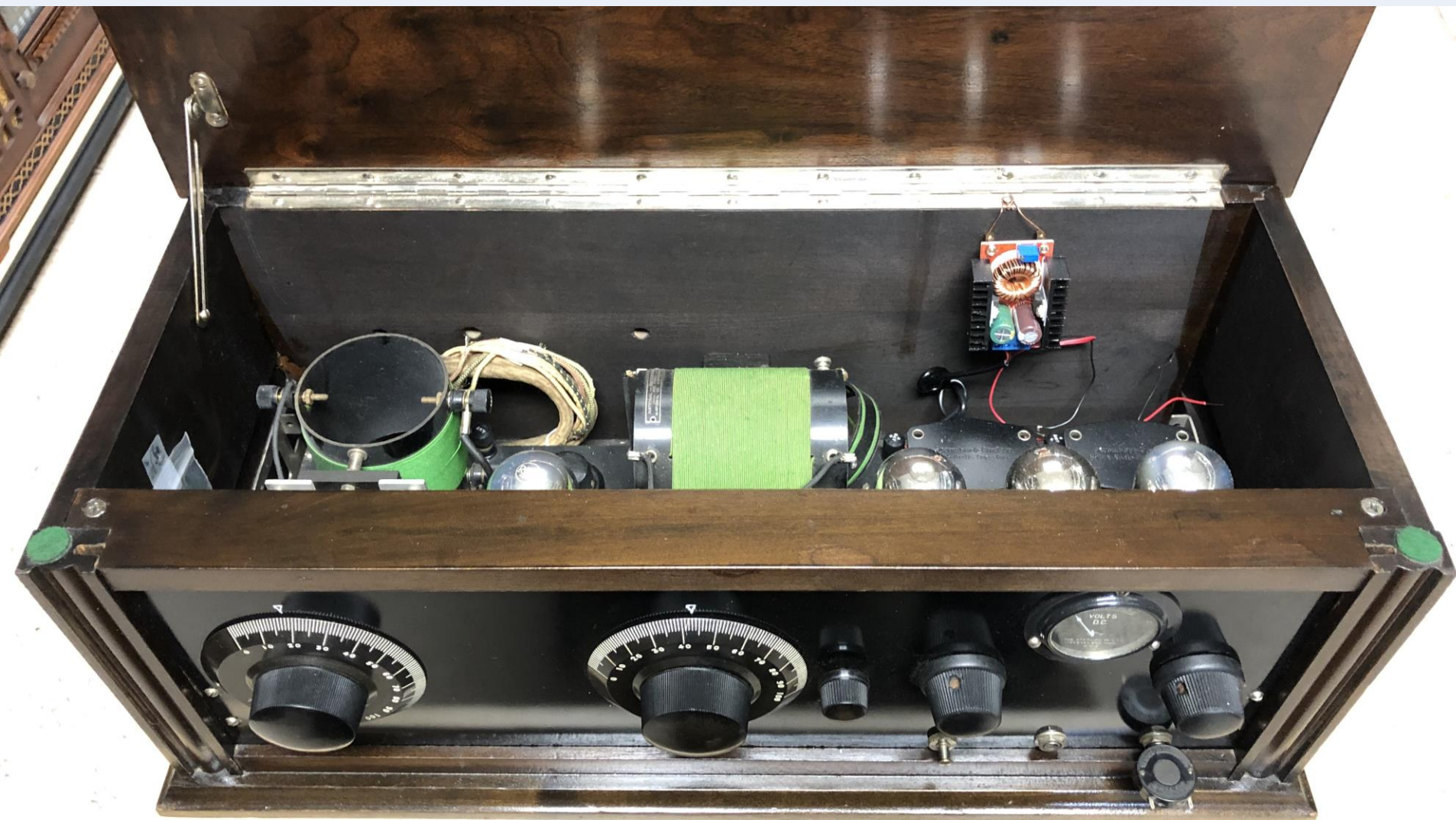
Philco 1939 "Mystery" Remote first home radio remote control not requiring any wires from remote to console



World War II “Gibson Girl” Life Raft Radio
Turn the crank to send a homing signal to the rescue planes.



World War II Nazi Propaganda Radio. Listening to the BBC or Voice of America was punishable by death!



Beautifully Restored 1920s Regenerative Radio. Originally battery powered, now powered by wall warts, a buck converter and Zener diodes.



Beautiful Tuned Radio Frequency (TRF) 1920s Receiver
Made by the Dayton Fan Company (DayFan)



Scanner Collection



Citizens Band (CB) Radio Collection



Early 1950s Pre Transistor Portable Radio by Motorola

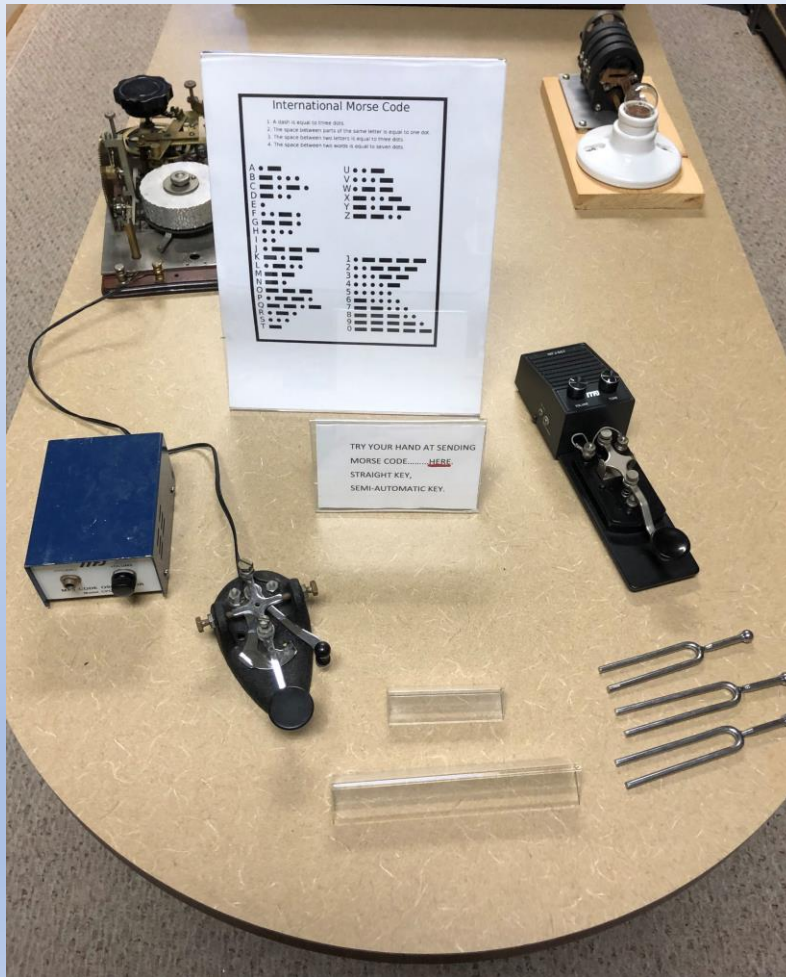


Interior of Motorola Pixie Radio – uses subminiature tubes created in World War II for military use



Late 1940s Child's Toy Recording Machine by General Electric
(note the early "floppy disk" recoding media)

New Hands-On Activities



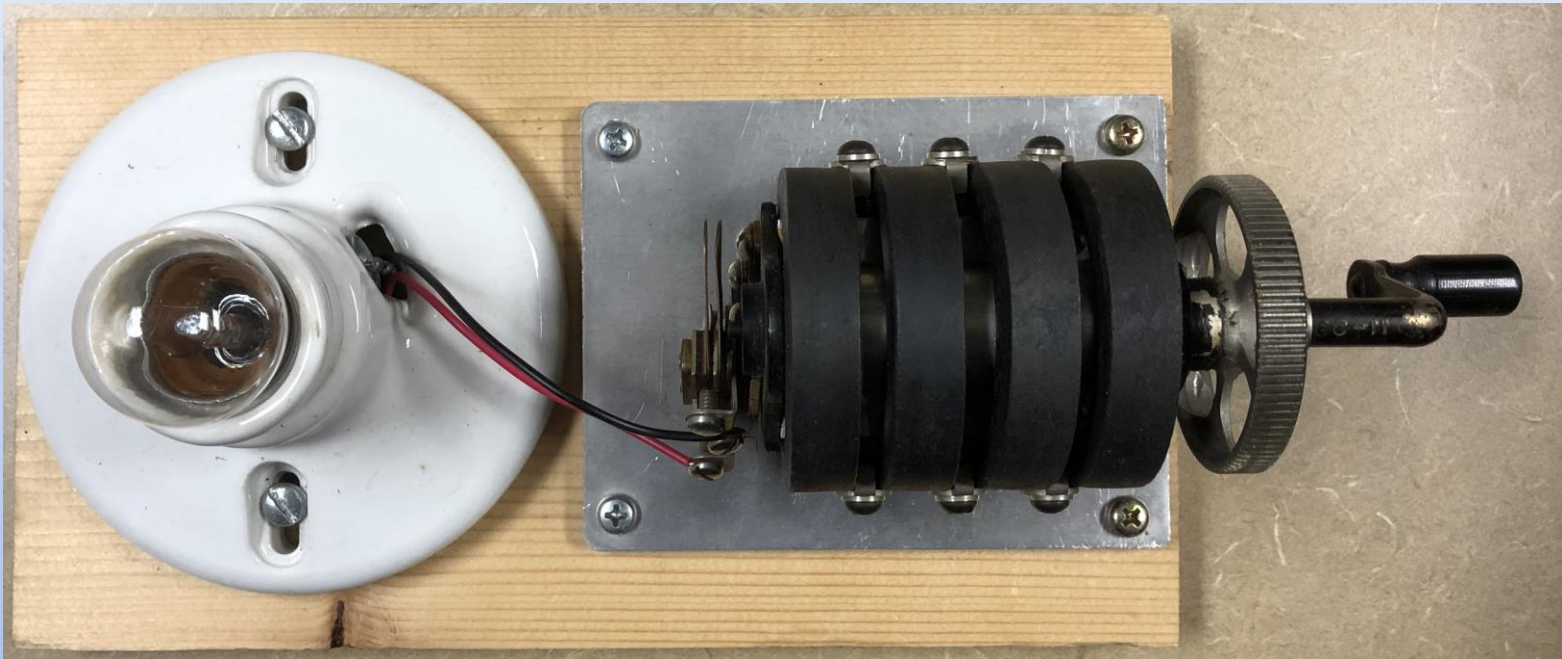
Visitors enjoy
spelling their names
in Morse Code

New Hands-On Activities



Spark transmitter and transistor radio used to show how sparks create radio waves.

New Hands-On Activities



Generator used to show the relationship between electricity and magnetism and to explain how radio waves are self perpetuating.

New Hands-On Activities



“Lightning in a Bottle” used to demonstrate how lightning creates radio signals that interfere with AM station reception.

New Hands-On Activities



Prototype MP3 player – visitors press a button to hear vintage radio broadcasts.



Totally New Web Site

www.avlradiomuseum.org

RADIO WAVE WIZARDRY! 
Come Explore the Magic



**THE MUSEUM REOPENS IN 2020 ON SATURDAYS
STARTING FEBRUARY 1, FROM 1 PM TO 3 PM.**

FREE ADMISSION TO ALL

STEM Students and Group Tours Welcome!

**Click for a [Brief Video Tour](#), [2019 PBS Video](#),
[NPR Story](#), [Laurel Article](#) or [Museum Flyer](#)**

[Virtual Tour Using Your Smart Phone](#)

Web Site – Expanded Content

WHAT'S YOUR INTEREST?



RADIO DISCOVERY AND DEVELOPMENT

Hear the exciting story of how invisible radio waves were first theorized, then proven in the lab, then used to contact ships at sea and even send messages across the ocean! Try your hand at Morse code (dots and dashes use to send messages). See a replica of the first radio wave detector and how it works. Learn about the huge impact of radio in the 1920s on rural western North Carolina.



AMATEUR (HAM) RADIO

See more than 50 transmitters and receivers, beginning with an early 1900 spark gap transmitter for Morse code. See a working ham station and learn how hams can work through the internet and even contact the international space station! And, we can explain how YOU can become a ham, joining more than 700,000 hams worldwide.



VINTAGE HOME RADIO

Try your hand at tuning a hundred year old "crystal" radio, or a 1920's farm radio (hint: it takes turning three separate tuning dials). Listen to famous old radio broadcasts such as the wreck of the Hindenberg blimp, President Roosevelt declaring WW II, or funny old radio comedy shows. Learn about [WWNC](http://www.wwnc.com), the area's first radio station (still broadcasting today).

Ready To Go On The Air With W W N C



Web Site – 1920s Farmers and Radio

**RADIO PHONES TO
REVOLUTIONIZE
FARMING IN U. S.**

**Will Do More for Farmer
Than Other Single Fac-
tor, Radio Expert De-
clares.**

The expanded web site now has many 1920s newspaper articles on how radio improved life for farmers.

There are more than 32,000,000 people on farms, comprising nearly one-third the total population of the United States. Most of these are located where they are practically cut off from immediate contact with the outside world. The radio is the only means of getting to them quickly either the economic information necessary in the proper conduct of their business, or the general news of the day.

Daily market reports on the live stock, grain, cotton, hay, feed, fruits and vegetable market are broadcast over virtually the entire United States. Farmers located almost anywhere can receive them either direct or through the assistance of amateur operators.

New Smart Phone Virtual Tour See the Museum From Your Home!

Asheville Radio Museum presents

Free Audio Tour

On Your Smartphone



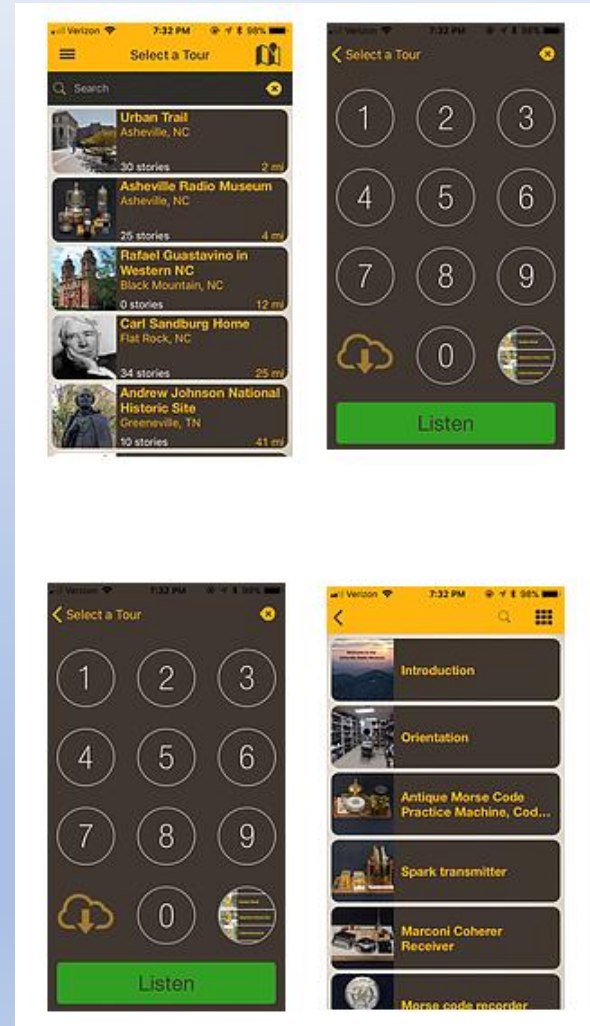
1. Scan this QR-code
OR visit www.audiotour.me
to install the free UniGuide app.



2. Allow UniGuide to access location
OR search by typing "**Radio**".



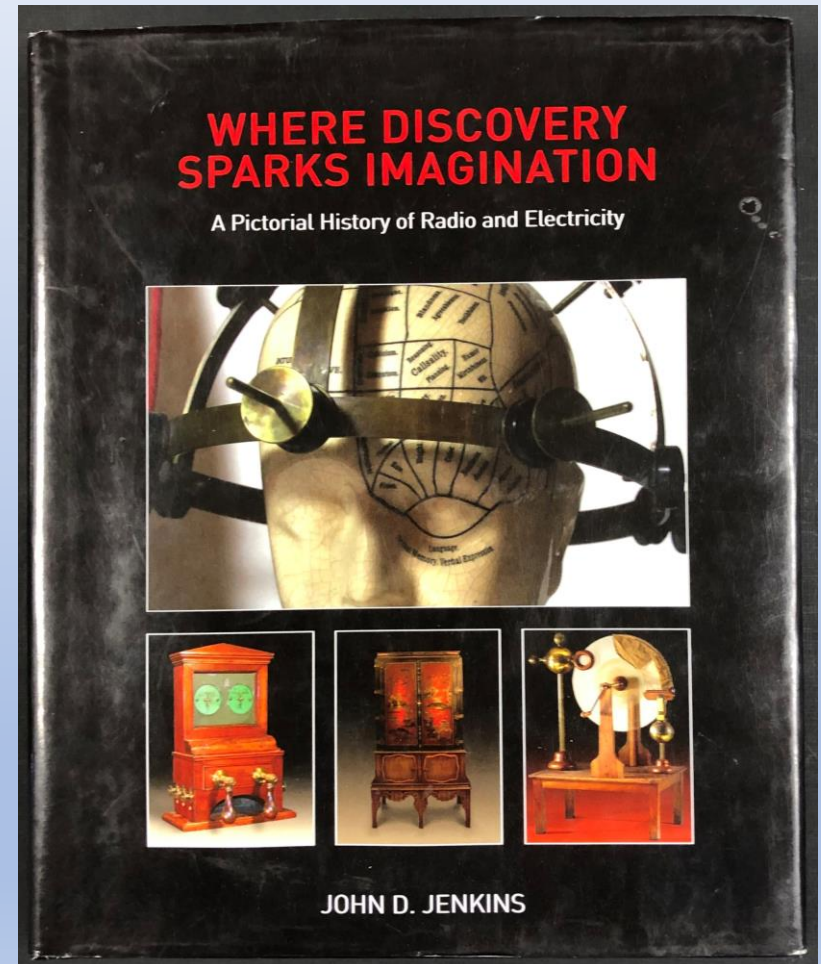
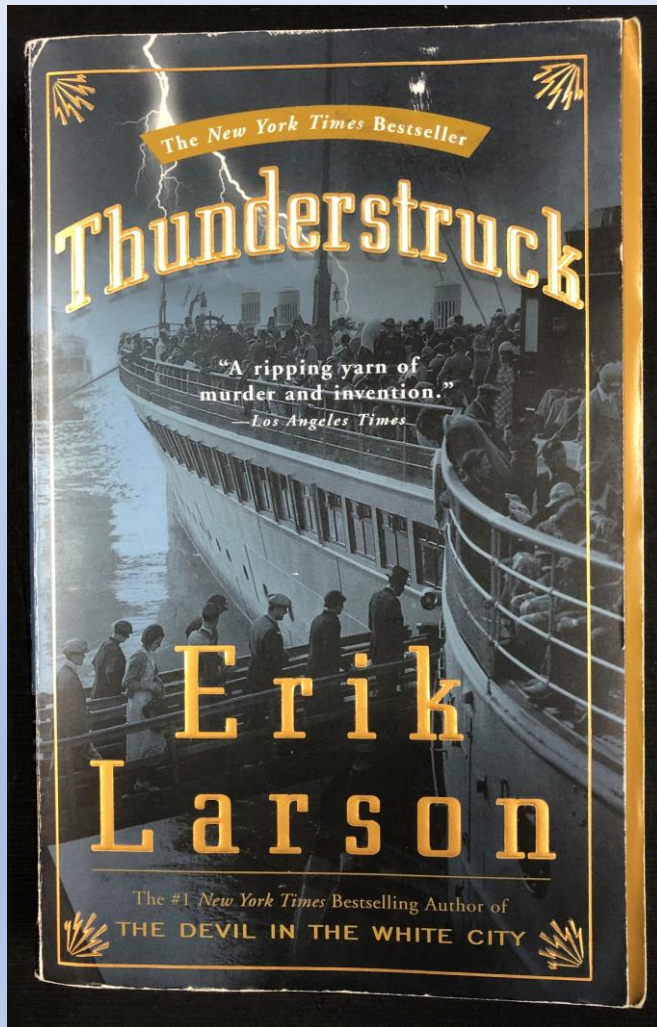
3. Spot audio stops,
enter their numbers, and listen.



New Radio Educational Presentation Perfect for STEM Students



Expanding Book Library





Friction Machine Replica

Sample illustrations from the Spark Museum book – many incredible items to see!

Scintillating Tubes



Expanding Book Library



By late 1928 the Atwater Kent Company had manufactured two million radio sets.

In 1931 it had 12,500 workers and was making 6,000 radios each day.

Atwater Kent made his first fortune building ignition systems for cars

The Atwater Kent Ignition System

is not only distinctive from other ignition equipment in name, but it is **advantageously different** from all others in many respects.

Other ignition equipment have the distinction **without the difference**.

The Atwater Kent System is **different** in embodying the best features of both magneto and battery. In fact, it gives magneto results with a battery system, without the weaknesses of either, at less than one-half the cost of a good magneto.

It is ideal for use in connection with lighting and starting equipment, as it produces a hot dynamic spark, perfectly timed, regardless of the engine speed.

Just a few of the many good features of the Atwater Kent System are—

Its simplicity of mechanism—no vibrators, relays or commutator—just one contact point regardless of the number of cylinders and only three moving parts, none of which are subject to excessive wear.

Its single adjustment easily and quickly made and seldom requiring attention.

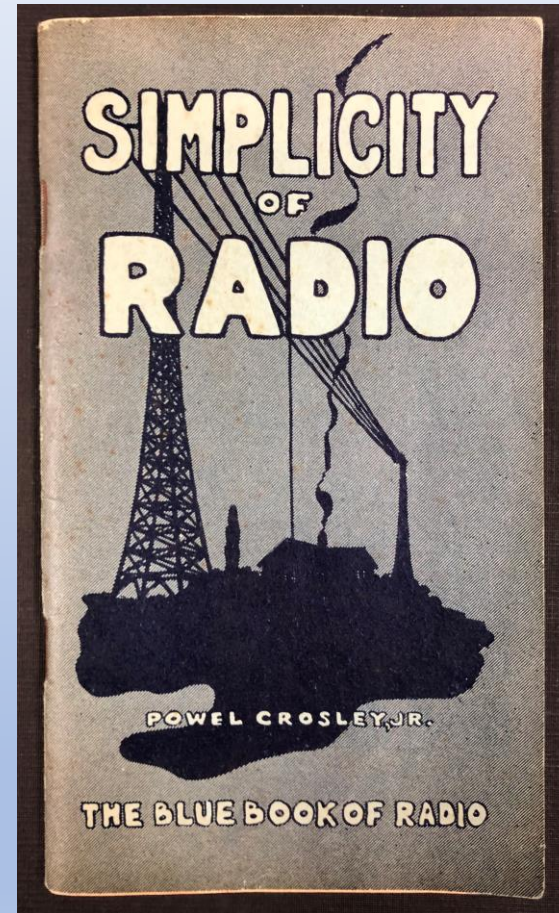
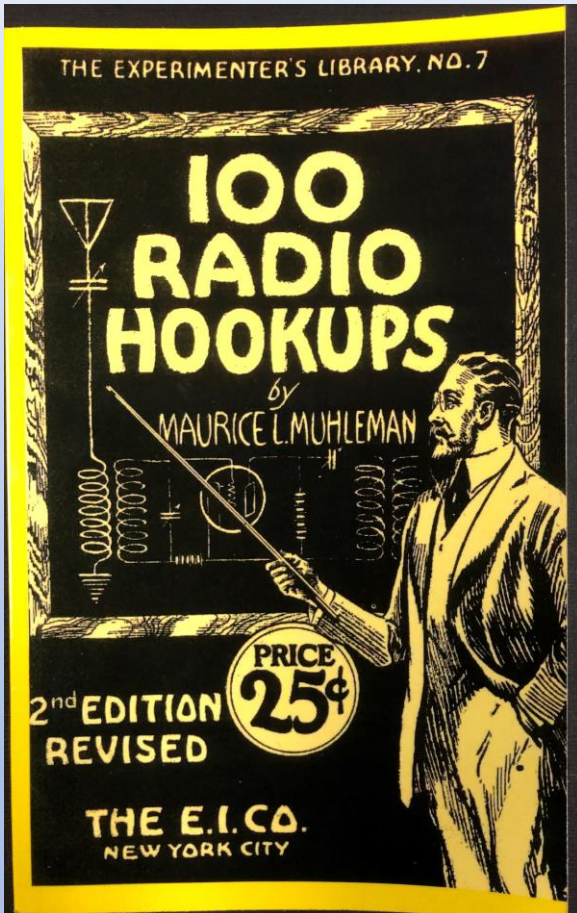


PRICES OF THE TYPE F SYSTEM

	Standard Coil	Kick Switch Coil
1 cylinder	\$17.00
2 cylinder opposed	18.00
2 cylinder distributor type	22.00	\$24.00
3 cylinder distributor type	25.00	27.00
4 cylinder distributor type	25.00	27.00
5 cylinder distributor type	27.00	29.00

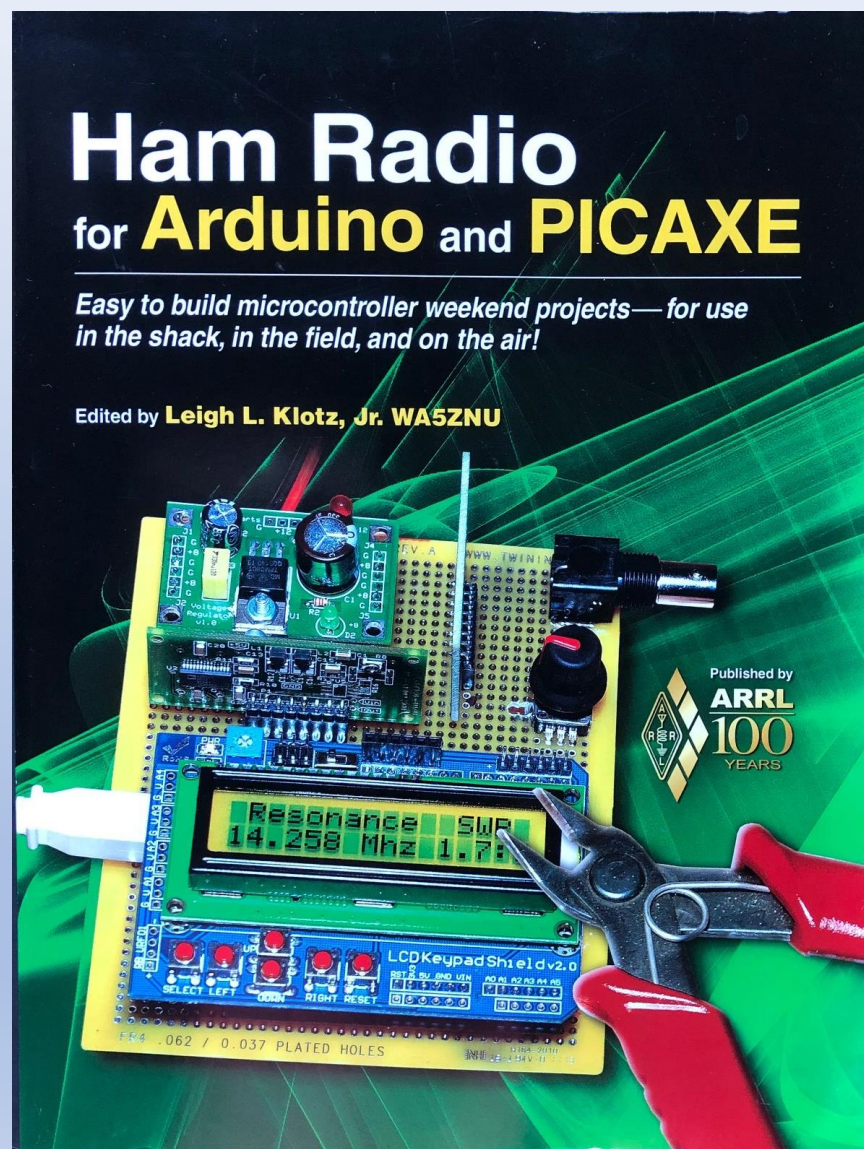
The Unisparker Ignition systems became the automobile industry standard for almost 50 years, until the advent of the HEI systems in 1974.

Expanding Book Library

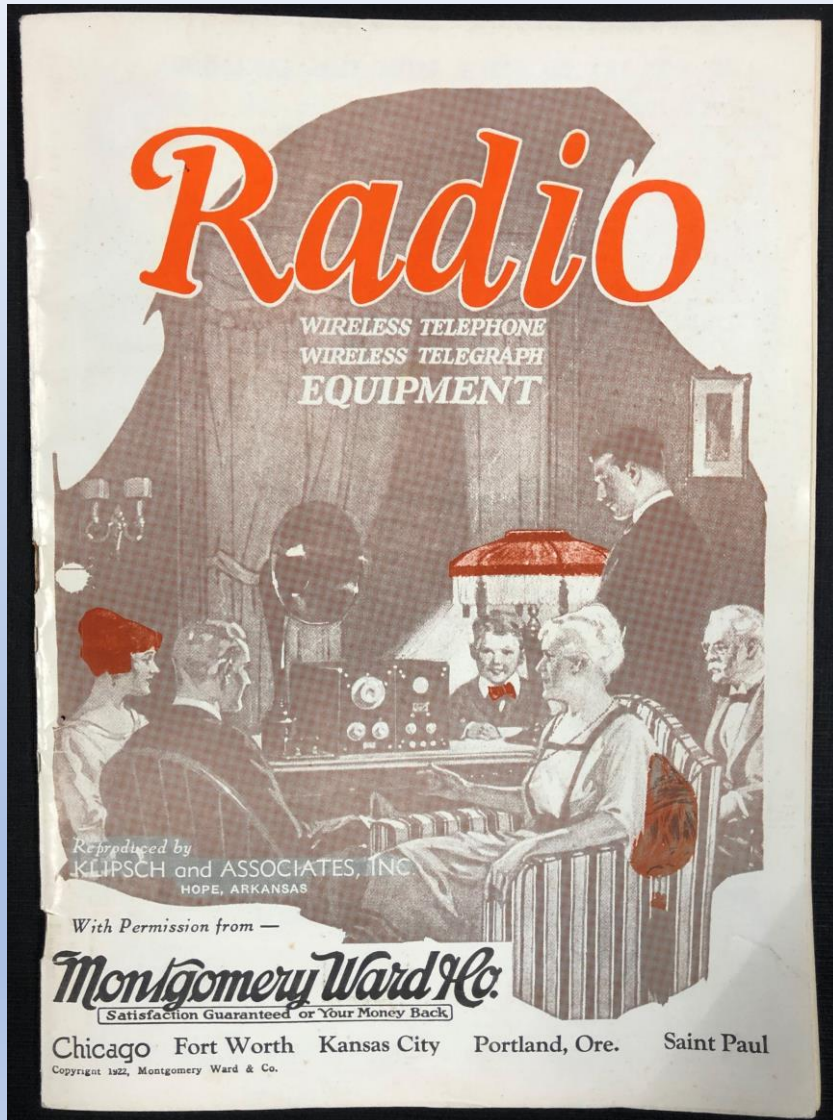


Crosley takes 80 pages to explain the "simplicity" of radio!

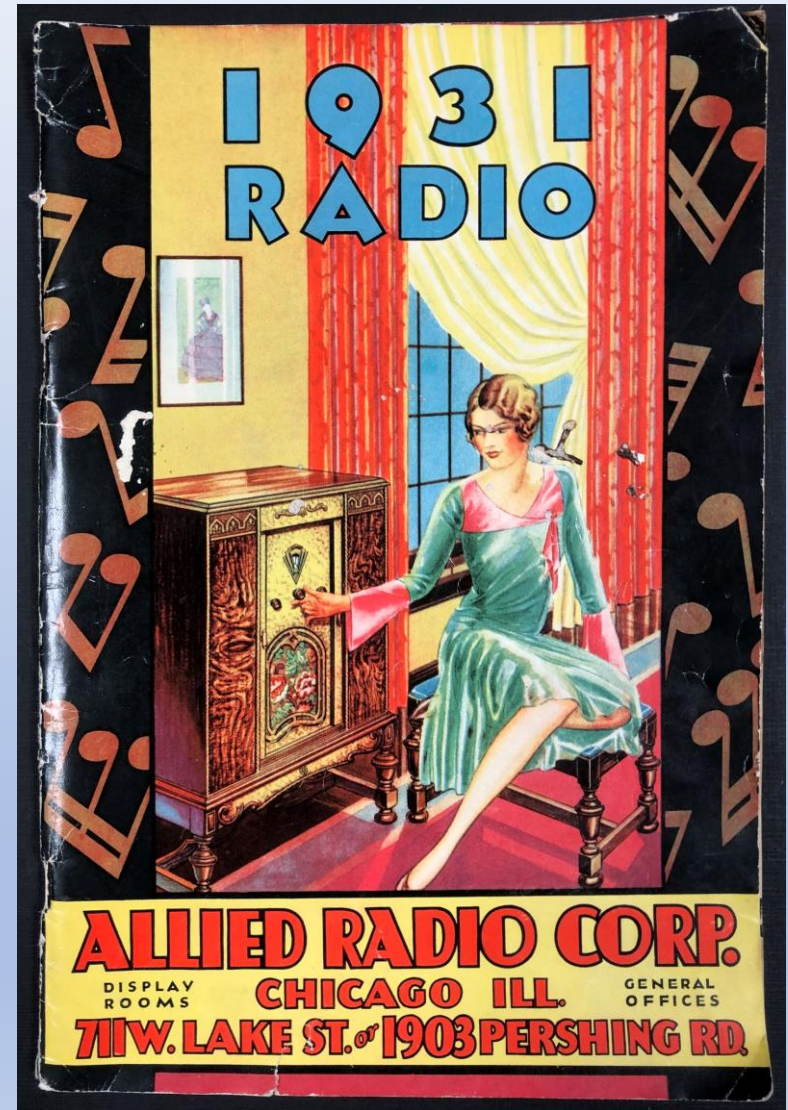
Expanding Book Library



Expanding Book Library



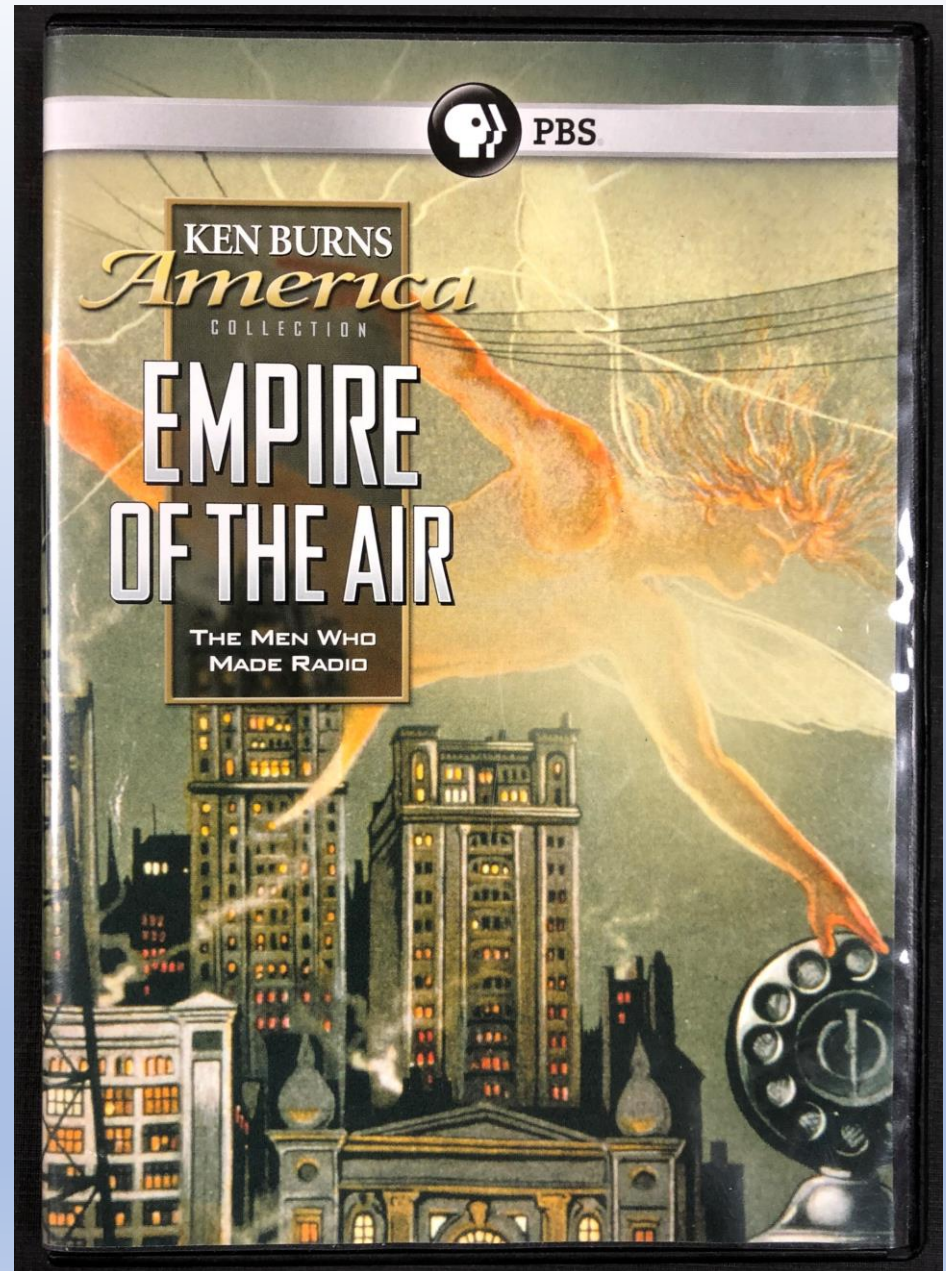
1923 Catalog



1931 Catalog

New DVDs

A wonderful Ken Burns documentary on Lee DeForest (triode inventor), Edwin Armstrong (regenerative, superhet and FM inventor) and David Sarnoff (national radio station network creator)



Community Service Friends of the Smokies Fund Raiser for a New Park Radio System



The Museum provided beautiful vintage radio on display to help with fund raising.

Community Service Buncombe County Schools

BCS Celebrate STEM Day



The museum will participate in the county schools' science festival.

Radio Equipment Donation to B-17 Restoration Project in Asheville



www.hangarthirteen.org

Community Service Group Tours

- Music Classes
- History Classes
- Early College Science
- Physics Class
- Various Ham Clubs
- UU Church Group
- IEEE Chapter
- Avl Women's History Club
- Am. Assoc. Univ. Women

Community Awareness – Laurel Magazine

HISTORY FEATURE



By Lauren Stepp

Asheville Radio Museum Broadcasts History of WNC

At 5:30 p.m. on a Monday, most Asheville residents are fighting traffic or answering last-minute emails. But in the Elm Building on the campus of Asheville-Buncombe Technical Community College, Stuart

Smolkin is cranking up a century-old phonograph.

"You hear that?" he asks. The record player hesitates, but soon sputters out a high-tempo show tune. A professor leaves an office to peer inside the narrow classroom. The music is loud, after all. "Everything is mechanical," says Smolkin, nodding to onlookers. "The sound waves are amplified when they go through this horn."

As secretary and curator of the Asheville Radio Museum, Smolkin is an expert in the science of sound. Engineering students often stop by to practice Morse code or to learn about radio waves, which according to Smolkin, travel at the speed of light (186,000 miles per second) and can pass through solid walls. But in uncovering the science behind radio, students also uncover the history.

"Radio had a powerful impact on Western North Carolina when it became available," says Smolkin. "It changed everything, almost as much as the internet did."

politics, and though this left many communities divided, it evoked a sense of patriotism too.

"Before radio, people thought of themselves as belonging to their county or their state," says Smolkin. "But with daily countrywide news, more people began thinking of themselves as Americans."

Still, for many families the radio was simply a source of entertainment.

"A fellow I just met explained how, as a child, his rural



Invented in 1904, vacuum tubes were a basic radio component. Photo by Lauren Stepp

Community Awareness

Mountain Express Newspaper

NEWS BRIEFS

by News staff | news@mountainx.com



LISTEN TO THIS: Vintage radios and many other artifacts that shed light on the history of transmitted sound are on display at the Asheville Radio Museum, which is open Saturday afternoons throughout the summer. Photo courtesy of the Asheville Radio Museum

ily and naturally as a Leviathan taking to water.”

and punctuation are preserved from the original documents. X

Asheville Radio Museum at A-B Tech

Interested in learning more about the history of radio broadcast? Consider visiting the Asheville Radio Museum, located in room 315 of the Elm Building at A-B Tech.

Launched in 2001, the museum features a collection of radio equipment, advertisements and other memorabilia. Admission is free, and if you're lucky, curator **Stuart Smolkin** might show you how early listeners converted oatmeal box containers into homemade crystal radio sets.

For more information, visit avl.mx/5ub. X



BACK IN THE DAY: Asheville Radio Museum curator Stuart Smolkin points out a 1930s Tombstone Radio. Photo by Thomas Calder

Community Awareness Capital Play Magazine



A ROOM OF radios
at the Asheville Radio Museum.

Radio Could Still Kill The Video Star

The radio has been evolving for about ten times that long. And the Asheville Radio Museum has been tracking that evolution since 2001. The museum fills a small room on the A-B Tech Asheville campus, with floor-to-ceiling shelves of radios, both broadcast and ham, along with tubes, an early phonograph, a working Morse code key, framed paintings, news clippings, prints, cartoons, and assorted paraphernalia.

During our visit, museum President Steve Carter cranked up a 1902 Edison Standard Phonograph, with a large horn speaker. He pointed out that there was no electricity involved in producing the sound, which came out of the horn as a raspy, scratchy vocal arrangement of a song called, "Everybody Wiggle Waggle."

One of the displays is a variety of radio tubes, which Carter said often confuse people. "Sometimes we ask visitors, 'What are these?' And people under 40 don't know. They answer, 'Light bulbs?'" The tubes seem to be historic anomalies, but Steve says they are still manufactured in Europe and Asia. And, although they can be hard to find in this solid-state age, "There's a place in New York that has a huge stock of old tubes. It's a warehouse with racks up to the ceiling with nothing but tubes." And the museum actually has its own stash of the aging rarities. "We

have boxes of old tubes," he noted, to replace ones that wear out.

Nowadays, museums tend to focus on what's new and what's still to come. But Carter said the radio museum is trying to cross that bridge. "All of us really like this old stuff, and we think there's quite a bit of value in maintaining the history. At the same time, we have some of the latest technology to demonstrate what radio waves look like. So, we can show people the science of it."

Many of the "old stuff" exhibits feature familiar brand names, such as Zenith, Bendix, or Edison, but one bulky model on display draws particular attention. Showing no fewer than five dials across the front of a black case, Carter identified it as a Neutrodyne Broadcast Radio Receiver dating from the 1920s—it had been a popular model in rural areas because it could receive stations from cities as far away as Boston or Dallas.

Ed. Note: The museum is closed in January except by special request.

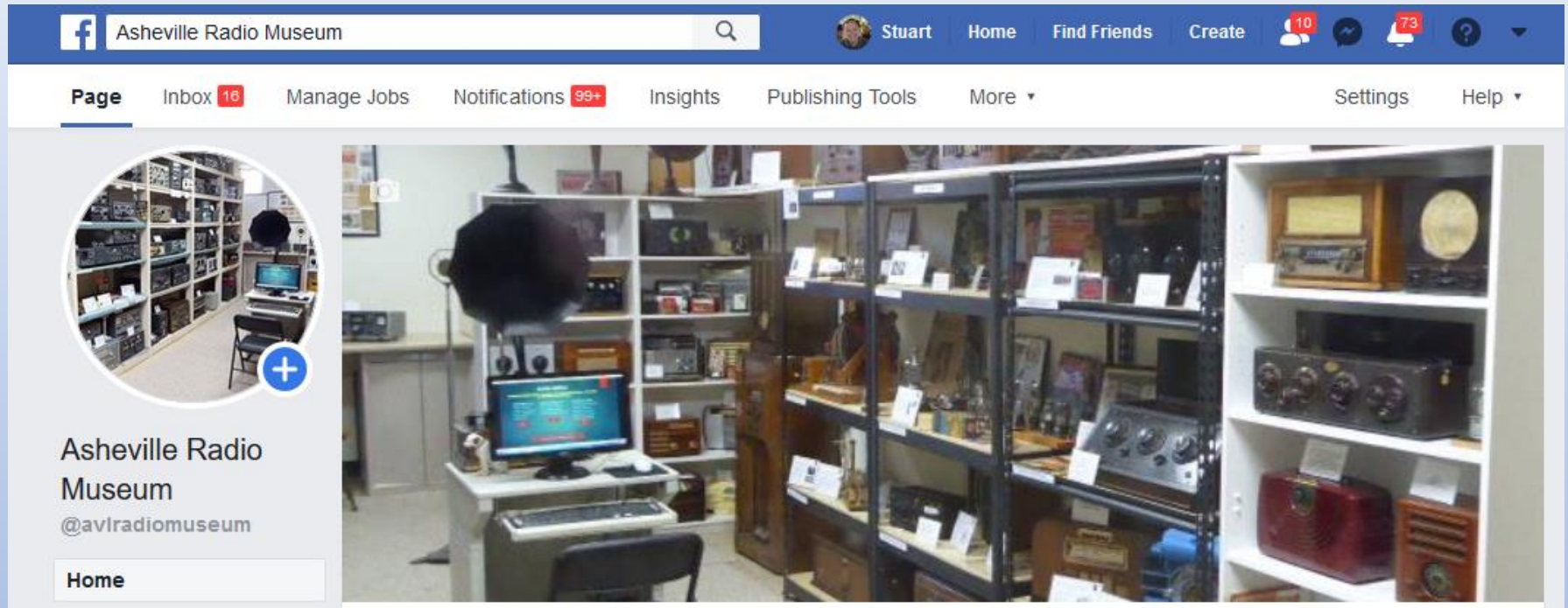
Tag THIS

Stretching the definition of "museum" allows us to visit an outdoor array of art and graffiti on Riverside Drive in the Asheville arts district. The display is an outgrowth of a project that celebrated local muralist




Computer Workstation on Radio's Discovery and Development.
Early 1900s Corona Folding Typewriter.





We're On Facebook...





and Yelp...




Find Near





 Restaurants

 Home Services






 Auto Services

More


 Write a Review

 For Businesses

Asheville Radio Museum



1 review

 Details

Write a Review


Add Photo

Share

Save

Museums


Edit





Located in


AB Tech Community College


315 Elm Building
Asheville, NC 28801




 Get Directions

 (504) 256-5796

 avlradiomuseum.org

 Message the business

 Send to your Phone



See all 9 photos

Photo of Asheville Radio Museum - Asheville, NC, United States

and Explore Asheville...

Asheville Radio Museum

A-B Tech Community College
340 Victoria Road
Asheville, NC 28801
Phone: (504) 256-5796
Region: South

[Visit Website](#) | [Add to Trip Planner](#)


SPECIAL SUMMER HOURS:
OPEN ON SATURDAYS 1 PM - 3PM DURING JUNE, JULY AND AUGUST 2019.

Radio waves are like magic! They travel at 186,000 miles per second. They make possible our cell phones, GPS, wireless internet routers, Bluetooth speakers, radar and much more! Learn how radio waves were discovered and developed and their huge impact on Western North Carolina in the 1920's. See the beauty of early radios... see amateur radio equipment and try your hand at Morse Code... view the WWII radio that helped rescue downed pilots, and the German Nazi radio that could get one killed by listening to a foreign station! Listen to early music on an early 1900s Edison phonograph... take a virtual tour on your smart phone from where ever you are! STEM students welcome. Free admission to all. Special tours available for tourists in town during non regular open hours. Download a FREE virtual smart phone tour from our web site www.avlradiomuseum.org and use it where ever you are!

Amenities



and Trip Advisor...



Rcr102
Hendersonville,
North Carolina

2 1

5 Reviewed November 16, 2017


Something Different !

This is a gem, somewhat hidden, on the campus of AB Tech in Asheville NC. Located in the Elm Building, Room 315 it has a wonderful collection; demonstrating the evolution of radio from its conception to today. Very old working models and demonstrations of equipment... [More](#)

Date of experience: September 2017

1 Thank Rcr102

Respond



ChangeYourMind
Downers Grove,
Illinois

5 12

5 Reviewed June 2, 2017


Off the beaten path and well worth the visit

This might not have been on your Asheville must-see list, but if you or your kids are interested in electronics, broadcast radio, antique radios, or amateur radio, you will enjoy this brief stop. It is not a whole-day experience. You would probably visit for an... [More](#)

Date of experience: June 2017

Thank ChangeYourMind

Respond



Edwin T
Mint Hill, North
Carolina, United
States

26 7

5 Reviewed May 1, 2016

A Hidden Gem

For the person wanting to see old radios, both household and shortwave equipment, old telegraph keys, and old transmitters, along with other miscellaneous items.... this is definitely the place to visit.

Date of experience: April 2016

Thank Edwin T

Respond

SUMMARY

- If you haven't visited in the past years, you need to come see an entirely new museum.
- We amaze. We fascinate. We educate!
- This is *your* radio museum. Ham clubs, church groups, scouts... all welcome!

Visit With Us in Asheville



Room 315, Elm Building

Regular hours, February through November are
1 PM – 3 PM Saturdays
(special appointments readily available)

Click [here](#) for detailed directions

Directions To The Museum

TO REACH THE PARKING GARAGE

To see a Google map with directions from your current location to the free parking garage: Click this [link](#). Or, cell phone users, tap and hold this QR Code. Then, select Open in Google Maps (Apple) or Visit Page (Android).



GETTING FROM THE GARAGE TO THE MUSEUM

Walk to the garage lobby.



Thank You!



Stuart Smolkin
Curator