NOTE - MEETING ON THE 19th TO AVOID KUTZTOWN CONFLICT

The next NJARC meeting will take place on Friday, May 19th at 7:30 PM at InfoAge. Directions may be found at the club's website (http://njarc.org). This month's agenda will feature a Radio Scavenger Hunt. Further details may be found on page 2.

The ON-LINE Broadcaster

The Jersey Broadcaster is now on-line. Over 150 of your fellow NJARC members have already subscribed, saving the club a significant amount of money and your editor extra work. Interested? Send your e-mail address to mbeeferman@verizon.net. Be sure to include your full name.

The final count is in and we only had to cut 17 people from our membership roles for non-payment of dues. Of course, they will no longer receive the Broadcaster so, if you hear any "buzz" along these lines from past members, you can tell them the reason why.

Thanks to Technical Coordinator Al Klase for his presentation at the April meeting which he titled "Radio in the Teens" where he traced how WW I took a relatively mature telegraph technology "based on sparks and rocks" to CW telegraphy, AM radio telephone and long-distance telephony supported by a sophisticated vacuum tube industry.

Al covered a host of topics including the problems with spark technology, the 1906 Telefunken arc transmitter and the interesting life of Paul Pichon. In 1911, Pichon toured the United States on assignment from Telefunken to gather samples of all the latest wireless equipment he could find. He visited the Western Electric Company and was given samples of the latest high-vacuum Audions together with full information on their use. Pichon also visited General Electric and received Pliotron samples.

Al also talked about the French TM valve, the first mass-produced vacuum tube based on GE "Pliotron" technology. Some 50,000 of these were produced by Moorhead in California and numerous others were manufactured by the British as the "R" valve. One of the earliest applications of the TM valve was the French Type 3.3 amplifier from 1916 that was used as an audio amplifier for "earth telegraphy" and as a detector and amplifier in a radio receiver. On the home front, Al talked about the Division of Research and Inspection which was responsible for a tank radio set, a two-watt radio loop set, listening station equipment, high frequency amplifiers, mobile telephone and telegraph offices and telephone sets for artillery fire control and balloon service.

Other topics in Al's presentation was a description of early U.S. military tubes such as the VT-1, VT-2 and VT-4 and the SCR-68 airplane radio.

My "Manhattan" vacation prevented me from attending our Spring repair clinic and guests from afar kept me away from the Kutztown swapmeet. However, thanks to radio reporter extraordinaire Bob Bennett and his cub reporter wife, all the action of both events was captured on YouTube under the heading "Radiowild." Bob called his feature on Kutztown "10 minutes of radio bliss" - I don't know if I'd go that far but some really nice pieces from the swapmeet and auction should up in Bob's video.

Our best wishes for a speedy recovery go out to member Gary D'Amico who is going through some rough times with medical issues. Gary was instrumental in maintaining our tube program for many years and did a fantastic job. If you care to contact Gary with a card or note, he can be reached at 84 Noble St., South Bound Brook NJ, 08880.

Our April meeting also featured the auction of some very nice communication receivers including a National NC 125, a Hammerlund HQ-120, a Hallcrafters S-40A and a Hammerlund SP-600. Thanks to the individual who donated these items to the club and for president Richard Lee for setting up their sale.

Upcoming Events

May 20th - Veterans and Armed Forces Appreciation Day at InfoAge
June 9th - Monthly meeting at Princeton; Show & Tell, Hints and Kinks
July 14 - Monthly meeting at Princeton; topic TBA
July 22nd - Summer Tailgate at InfoAge
August 15-19 - AWA Annual Convention
RADIO SCAVENGER HUNT AT MAY MEETING

By Marv Beeferman

The concept of a "radio scavenger hunt" was first suggested by member Marsha Simkin many years ago and we've conducted quite a few over the years. Basically, members compete in various radio-related categories by displaying the strangest or most unusual item in a maximum of three of the thirteen categories represented. The "hunt" is conducted within your own collection. The membership then votes for their first choice of the one item that best represents and is the most unique entry of all categories in the contest.

The game's idea becomes a lot more obvious when you review the categories that your entries must fit into:

1. Most unusual item in the shape of a radio that really isn't a radio.
2. Most unusual item not in the shape of a radio that really is a radio.
3. Most unusual "wearable" radio-related item.
4. Most unusual radio-related toiletry, cosmetic or personal care item.
5. Most risqué radio-related item.
6. Most unusual radio-related game or toy.
7. Most unusual radio-related greeting card for a holiday other than Christmas, Valentine's Day or New Years.
8. Ugliest or gaudiest commercially produced radio.
9. Strangest or ugliest looking tube.
10. Most unusual novelty radio.
11. Most unusual radio accessory other than a speaker, headphone or battery.
12. Most unusual commercially produced crystal set.
13. Most unusual radio advertising item.

Here's the way the contest is set up:

1. Take an index card for each entry (maximum of 3).
2. On one side of each card, print the category number and a short description of the item. (Example: 9 - Large, ugly water-cooled transmitter tube.)
3. On the opposite side of the card, print your name.
4. Place the card next to your entry with the category number/description side up.

5. We'll give members the chance to vote on the the one entry that they feel is the most unique and unusual and that best represents the category it was entered in. Members will vote for only one entry in all the categories (not one in each category - we had this misunderstanding last year) by placing an "X" on the front of the selected index card.

6. You can vote for another member's entry but you can't vote for your own.

This can be a fun contest but it totally depends on the participation of members attending the May meeting.

THE WORLD OF JOHN VASSOS

By Marv Beeferman

John Vassos was considered by many as the founder of the industrial design profession in the United States. From his earliest days, he considered how the frenzied urban environment, with its rapid transit, towering buildings and powerful machinery increased anxiety and how carefully applied modern design, such as simple geometric shapes, could make complex technology less frightening.

Vassos was extremely prolific and his designs were applied to a host of diverse projects. In 1924, Vassos created his first industrial design, a lotion bottle popular as a hip flask during Prohibition. In 1933, he designed the widely popular Perey turnstile still used in many subway stations. Other projects included, but were not lim-
create a top-secret design center to develop future styling ideas for RCA products. Concept sketches culminated in eight futuristic "Sets of the Seventies" rolled out in 1961. They included wafer-thin, large-screen televisions with crystal clarity and miniaturized portable color sets for use in the car, which when closed were as small as a lady's purse. Also visualized was a versatile television set for the "executive on the move," which folded into an innocuous attaché case and could be used for marketing presentations as well as personal enjoyment at home. These designs anticipated the mobile screens and Nano-thin, theatre-size viewing walls of today. Although none of these televisions were produced, they reflect the visionary thinking of Vassos who created attractive and functional shapes for technologies which had no design precedent.

Streamlining found expression in a majority of Vassos designs, particularly during the Great Depression, when manufacturers turned to industrial designers to distinguish their products from their competitors. The speed and energy of the period was emphasized through the use of aerodynamic curves, stepped forms, and the vertical rib motif, or "streamlines," for which the style is named.

A typical example is the Vassos-designed RCA Victor Special Model K phonograph which was light years away from the large cabinets built to hold phonographs in the early 1900s. It featured a "Slow/Fast" dial for 33 and 45 rpm records, compartments for new and used needles, battery power and a felt-lined interior with tabulated folders for "on-the-go" record storage. The new industrial material of aluminum made for a smooth, lightweight and stylish case and its round edges, streamline accents, chromed finish and bright red accents gave the phonograph an air of automobile elegance.

Vassos designed numerous radio cabinets for RCA and space limits his output to just a few examples. In general, his approach to radio cabinet design may be summed up by Danielle Shapiro in her book "John Vassos - Industrial Design for Modern Life:"

"He was determined to bring modern design into the home, but he would have to wait until the furniture cabinet phase of radio was over before he could create the modern shapes that plastics like Bakelite allowed. For Vassos the transformation of the radio form meant rejecting the tall, domed, vertical wooden shape known as the cathedral (grounded in the architectural tradition of the church), or the 'tombstone,' as he liked to call this dying radio shape."

Plastic radios were among Vassos's most successful designs. These included the Little Nipper line, the widely popular and affordable Model 15X, and the 96X series. The 1939 Model 96-X3 on page 4 was described by one collector as follows:

"I particularly like the impression created by the step-down top, the unobtrusive curved dial and the streamlined left side, with its wrap-around louvered grille in contrasting tan colored Plaskon. It inspires images of powerful machinery."

In the designs, Vassos relied on streamlining and adding vertical or horizontal lines to the bodies of the radios. He used plastic molding to give the radios an
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The 5Q56 "New Yorker." One of Vassos's first radios that expressed his design philosophy was the 1936 Model 6K10. He essentially removed the radio receiver from its outer, furniture-like wooden casing and propped it on the floor with curving metal arches, doing away altogether with legs. The model marked a departure from the Gothic arches and ornate grilles of the "cathedral" or tombstone radio and created a vision of radio as a medium that should be associated with modern materials and shapes in a bold and dramatic way. The radio had minimalist influences with sleek bends of tubular steel supporting a rectangular black receiver. Two vertical metal pieces at the edges of the speaker complemented the arches and drew attention to the radio's central feature - sound.

Other Vassos designs of note include the 811K and 813K consoles, the "Super Six" series, wood radios such as the 7Q4, Q-14, Q-31 and Q-33 and many radios designed for RCA's International Division such as the Canadian A-20. What Vassos radios are in your collection?

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Hopefully, this article may allow you to view certain pieces in your collection as examples of the unfolding history of American design and the story of modern style at RCA, the nation's major broadcasting and manufacturing company during this time.

STREAMLINED CONVENIENCE

By John Vassos

What's in a knob? Most of us view our electronic collectables in terms of its circuitry or mechanics. But a few of us also respect the talent that went into their design as exemplified by the previous article. Along the same lines, in some cases, we might miss the thought that went into the design of the most minor details. The following article, authored by John Vassos from the November 1937 issue of "Broadcast News," may give you a different take on the subject, as the variables considered in the re-design of a broadcast equipment knob is discussed.

Sometimes an apparently insignificant object is given a great deal of attention and one wonders whether the mountain brings forth a mouse or vice versa.

And this was the dilemma with which we were faced when it came to the problem of redesigning and standardizing the knobs for our various types of speech input equipment. At the first glance, the problem seemed to present a rather easy solution, which was, to smooth and clean...
the surface of the old-fashioned knobs, but, as the analysis proceeded, certain other pertinent facts were exposed. On active equipment, the control engineer spends hours manipulating these knobs without interruption, and also the fact was brought out that oftentimes the control engineer is in a sitting posture when working, changing the angle of the forearm to an entirely different plane and leverage of action as compared to the operation when standing. So, as the importance of this lowly object began to achieve gigantic proportions in its solution, a survey was taken to determine even further factors in trying to arrive at, and cover practically all conditions under which the knob would be used.

Broadcasting stations and radio centers were approached for vital information. First, it was necessary to arrive at the general proportions of the hand of the average radio engineer, assuming that, due to his particular type of work the hand development would be different than the average person. Then a plastic, soft putty similar to that used by sculptors was constantly molded and remolded until its overall firm was of such size and proportions to suit this average hand, with the result that the most favorable proportions and dimensions were determined: It has no sharp or angular protrusions but soft indentations that act as a sure grip.

Another fact was disclosed. Seventy-five percent of the control engineers rested their hands on the knob by hooking the middle and index fingers over the knob and in a manner suspending and resting their entire arm thereon, and at the same time manipulating the knob. This meant in a short period of time the complete disfiguring of the panel proper and the rubbing out of the calibrated numerals. Often callouses and infections developed on the hands of the operator from the metal pointer that existed on these old knobs. Consequently, a flange was added at the bottom of the knob to prevent marring of the numerals of calibration and an integral fin was provided to act as the pointer, starting from the bottom of the protective flange and, in a streamlined fashion, blending into the top of the knob, the pointer portion extending from the center of the knob. This resulted in a beautiful and efficient form which had no sharp or angular protrusions foreign to the contours of the human hand, and assured protection for the instrument panel proper by the above mentioned flange.

The indicator point is more efficient than on previous knobs of this type because the line from center of top of knob extends to the point of marking in a fin-like shape without a gap between. In general, speaking of the efficiency of these knobs, besides the above mentioned features, no injury can be sustained by accidental contact and, at the same time, in case the lights go out, it is possible to tune in total darkness, as the hands feel the web-like point rapidly. But its greatest service rests on the fact that it eliminates the fatigue and discomfort of the operator during the many hours that the knob is in use. And again, aside from its extreme consistency of functionalism, a beautiful form was evolved.

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The following article is based on work conducted by the club’s Technical Coordinator Al Klase. The complete, but still ongoing investigation may be found at Al’s Radio Technology Home Page: http://www.rtm.ar88.net/tubes/mystery/Mystery%20Tube.html.

A very unusual looking tube was part of a recent estate donation to the Radio Technology Museum (RTM) at InfoAge. It was mounted in a 4-pin base engraved
"201A." A heavy spiral filament sits inside a shield. Neither touches the triangular metal prism shown in the photo. Only two wires come through the press; they connect the filament to pins 1 and 4.

Al says he worked for weeks trying to "get a handle" on this unusual tube. It showed gas when activated by a Lepel high-frequency coil (baby Tesla). He speculated that the tube might have been made for some sort of laboratory demo. After sending out queries to the radio community (AWA, Tube Collectors Association, Milsurplus, etc.), the tube still remains a mystery. "Tube Lore" author and honorary NJARC member Ludwell Sibley was also "mystified:"

"There was once a four-anode disc-TV neon lamp associated with Jenkins, but it was a production item with vertical orientation of the anodes. The base heat-branded 201A doesn't mean a lot - the typical tube lab had access to fistfuls of them. The bits of glass tubing over the anode leads are consistent with a glass fill."

Al finally resorted to the basic investigative technique that many of us turn to when all else fails...he took a deep breath and fired up the tube. Here are some of his results:

- My small bench supply gave up at 1 volt at 1 amp without causing any glow.
- The filament drew 2.5A at 6.3V. (Not much anode current at 5 V.)
- The anode drew 3.3 mA at 400 VDC.

Al also photographed the image of the tube's discharge at various conditions (below) and a series of these can be found at the website noted in the preface to this article.

Now that Al has over 200 additional "detectives" in his search, let's hope that at some point we can read an article with the headline "Tube's Mystery Solved!"

"THE WORLD OF RADIO" AT THE COOPER HEWITT

By Marv Beeferman

It's unfortunate that I didn't see the posting by member Tom Cawley concerning an exhibit at the Cooper Hewitt Smithsonian Design Museum while I was vacationing in Manhattan. But since "The World of Radio" runs until September 24, 2017 there is still time. The exhibit is a good supplement to the radio design theme of this month's Broadcaster. The
exhibition features iconic radios, radio design drawings and photographs from the early twentieth century through the present day. The focus of the exhibition is a Depression-era, monumental batik (a technique for hand-dyeing fabrics) mural entitled "The World of Radio" that was designed by Arthur Gordon Smith. The mural celebrates the career of Jessica Dragonette, one of radio's most popular personalities of the 1930s.

Jessica Dragonette began singing on radio in 1926, and during her 22-year radio career she helped to popularize operettas and semi-classical music. An admiring press dubbed her the "Princess of Song," a nickname she later would use to publicize concert events. She was the star of the Philco Hour on NBC from 1927-30. By 1935, a listeners' poll voted her radio's most popular female vocalist. During World War II, she performed for charities benefiting the U.S. armed services, performed frequently for the troops and sold a record number of war bonds. Interestingly, a portrait of her hangs at her alma mater, Georgian Court College, right down the road from me in Lakewood.

On view for the first time in nearly three decades, the mural also includes over a dozen vignettes illustrating radio's formative events, personalities and achievements. Some of these include radio broadcasts to Admiral Byrd in the South Pole where they received bi-weekly broadcasts from NBC (Dragonette sang during one of these programs in 1929), a depiction of a rooftop shack that was home to station KDKA and famous radio broadcasts such as the Dempsey-Tunney prize fight and America's Cup yacht races of 1899 when Marconi telegraphed results from sea to a land-based station at the offices of the New York Herald. The mural personifies radio by a woman holding a radio at her heart, with music streaming out in waves.

The exhibit also features radios designed by pioneering industrial designers such as Donald Deskey, Dieter Rams and Henry Dreyfus which are installed alongside drawings by hand of prototypes for radio consoles and cabinets designed to enhance the modern home. The exhibition also underscores the technological advancement of radio electronics - from electric powered to portable to digital media players - and includes examples of historically significant radios.

Typical of the radios displayed is the Air-King Model 66 "Skyscraper" (1935). During the Great Depression, Air-King turned to Harold L. Van Doren and John Gordon Rideout, members of the emergent industrial design profession, to create a product for a highly competitive market. Their design was inspired by the skyscraper - one of the era's great icons - and utilized compression-molded plastic (Plaskon), a cheaper and less labor-intensive alternative to traditional wooden housings.

Part of the drawings included in the exhibit is the design for a tube radio with its speaker on top that was created for Crosley around 1955. The radio was never put into production.

The Cooper Hewitt Smithsonian Design Museum is located in the Upper East Side's "Museum Mile" in Manhattan on 2 E 91st St and is open weekdays and Sundays from 10:00 a.m. to 6:00 p.m. and until 9:00 p.m. on Saturdays.

As an afterthought, while researching this article, I discovered that this particular exhibit was registered as a participating event in World Radio Day. This observance is held annually on February 13 and was established by UNESCO. It was created as a day to celebrate radio as a medium, to improve international cooperation between broadcasters and to encourage major networks and community radio alike to promote access to information, freedom of expression and gender equality over the airwaves.

The theme of the 2017 observance, with 500 events worldwide, was "Radio is You" which put the spotlight on audiences, ensuring that their views and diversity are represented on the airwaves. We might want to consider registering the museum for the 2018 celebration as a great way to promote our activities.
New Jersey Antique Radio Club's
Summer Tailgate Swap Meet
InfoAge Science History Learning Center and Museum
2201 Marconi Road
Wall, New Jersey 07719

Saturday July 22nd, 2017
Refreshments Available

40 spaces available
$25.00 for members
$30.00 for non-members
Bring your own tables

Open to the Public
8am to 12 noon
Vendor setup at 7:15 AM
$5.00 Entrance Fee
Club Donation

For Directions
Visit our website: www.njarc.org
or Mapquest
2201 Marconi Road, Wall NJ 07719

Vendors Make Your Reservations Now!

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