

DM DANBURY MUSEUM



Hello Friends!

We hope you all are staying warm during this deep winter chill!

While it may be cold outside, the museum staff is busy planning all kinds of events for the warmer days (and evenings!) to come.

First off, we'll be celebrating Marian Anderson's birthday weekend on the 24th and 25th of February by inviting several special guests to read from Ms. Anderson's autobiography, *My Lord, What a Morning*. Our guest

readers will share the story of Marian Anderson in her own words. The readings will take place from 10-4 on both days--in the museum's Marian Anderson Studio--and all are welcome to join us for cake and refreshments while stopping in to listen to our guest readers.

While we're in a musical moment, we're incredibly excited to bring outdoor music back again this summer. Our friends at the Danbury Music Centre are joining us to present an *American Icons* concert (think Copland, Brubeck, Armstrong, Ives) under the tent at the Charles Ives Birthplace at 3pm on Saturday, May 13. This event will feature the Danbury Music Centre Community Band and if the weather isn't cooperative, we'll decamp to the Music Centre's Marian Anderson Recital Hall.

There will also be three free concerts this summer (June, July, and August) in the museum gardens, with the first one kicking off on June 30, and featuring a BBQ along with the concert. The concert will be free, and we'll have menu details for the optional BBQ coming soon.

Additionally, we have FREE Saturday programming in March and April covering topics from 18th century shopping and humor to the beginnings of the Revolutionary War. Check our Upcoming Events page for more details as they become available. We're committed to doing our best to keep mission-based programming like this free, allowing our events to be as accessible as possible to everyone.

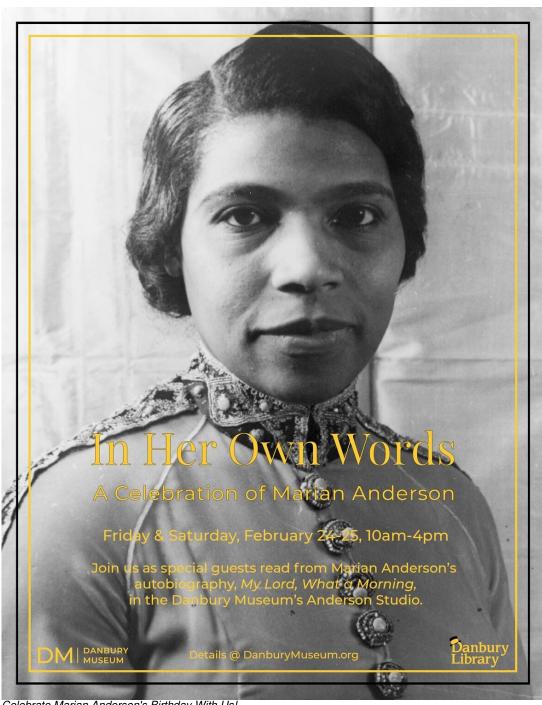
And Cursive Camp is BACK! We'll be holding two sessions of our nationally recognized camp this summer, July 17-21 and July 24-28. Details and registration will be available via our website in late March/early April.

We are once again fortunate to have Tom MacGregor and John O'Donnell writing for us this month--both essays involving very different kinds of analysis! Tom invites us to take up the challenge of tree identification using bark; and John introduces to two, early 20th century cryptanalysts. Thank you again to both Tom and John.

We'll look forward to seeing you here again in March, until then, keep well and stay warm.

Brigid Guertin (Executive Director, City Historian)

Patrick Wells (Research Specialist, Social Media Manager) Michele Lee Amundsen (Collections Manager, Newsletter Editor)



Celebrate Marian Anderson's Birthday With Us!



Danbury Museum gardens, photo by Tom MacGregor.

Bark

by Thomas MacGregor

A new class of nearly 50 student-interns began the year-long Connecticut Master Gardener program in Bethel this month. I was in that program ten years ago following my retirement from Boehringer Ingelheim. The coursework was intense, but extremely stimulating, and opened a whole new way of looking at phytobiology. Besides the didactic portion of the course, covering the notes found in my five-inch 3-ring binder, the program included hands-on laboratory identification work and a multi-month "Tree-Shrub-Vine" project that entailed identifying, collecting, and conducting indepth research on more than 30 specimens from an assigned list.

For me, the most difficult laboratory assignment was identifying a deciduous tree when given just a twig, i.e., sans leaves, fruits, or flowers. Think about it. When describing a tree, you usually talk about the shape of the leaves, the flowers blooming in spring, the fruits harvested in summer,

or the leaf color in autumn. But it's winter, so all you can describe is the bark, which can be interesting but challenging.

The first step of tree bark identification is the texture of the bark – smooth or rough, peeling or intact, bumpy or wrinkly. Bark covers the tree like a skin to protect the newest layer of intact wood from insect damage, diseases, and harsh weather. Bark can be paper thin or several feet thick as the tree ages. When you first think of the color of bark, you probably envision "dirty gray." But look closer. Many barks have shades of yellow, brown, white, or red within that overall gray observed from a distance.

Next, look at the branching pattern coming off the trunk. When you were a child drawing a tree, you probably drew it to look like a lollipop. However, experts identify trees in winter not only by their bark but also by their branching patterns that give an overall shape, called a "habit." Some habits (vase-like, weeping, columnar, ...) are easy to recognize in winter and help with tree identification.

It is important to identify the tree when trying to diagnose its health or nutritional requirements. Many diseases only occur in certain species of trees. The best way to quickly identify trees by their bark is to divide them into gross categories according to their bark characteristics: those with (1) smooth, unbroken bark (e.g., American and European beeches, young hawthorn, young lilac, witch-hazel); (2) deeply furrowed or plated bark (winterberry, white ash, oaks, Florida dogwood, old lilac, crabapple, black walnut); (3) peeling or flaky bark (black and paper birches, American sycamore, many maples, kousa dogwood); (4) red or bronze bark (Japanese maple); (5) striped bark (striped maple); (6) lenticels or spongy pores for breathing (yellow and silver birches, aspens, cherry); and (7) those with contorted shapes (vine maple). Additionally, many barks have a distinctive smell – think of the sassafras tree after a rain or snowfall.

If you're ready to try your hand at tree identification in winter, I've attached seven pictures of various tree barks. Look at them closely and try to identify each. You might find clues in this essay. You may want to consult the Internet or a library book on trees. To check yourself, go to the gardens at the Danbury Museum and look for the answers on the markers provided by the Danbury Garden Club.

The nice thing about bark identification is that you can do it anytime. Fruits

and leaves may disappear, but bark is always there.

After 33 years at Boehringer Ingelheim, Dr. Tom (UConn '85) retired to his garden and piano.

















Agnes Meyer Driscoll



Two Vital Cryptanalysts

By John O'Donnell

Agnes Meyer Driscoll (1889-1971) was a key component of the United States intelligence effort in World War Two. She was known as Miss Aggie, Madame X, and the "first lady of cryptology." She was born in Geneseo, Illinois, in 1889. Her family later moved to Ohio and she received a B.A. from The Ohio State University, majoring in mathematics and physics. She was fluent in Japanese, French, German, and Latin. She loved technical and scientific studies. On June 22, 1918, she enlisted in the United States Navy. She was assigned to the Code & Signal section of the Director of Naval Communications. She had a brilliant career as a cryptanalyst. During the interwar years she spearheaded work for the

"Black Chamber," also known as the Cipher Bureau. This was the first United States peacetime code breaking agency which set out to break codes used in diplomatic correspondence.

Miss Aggie also took the lead in the emerging machine technology which was used both in making and breaking ciphers. She was instrumental in developing the United States Navy's cipher machine which was called the "Communications Machine." This was the standard enciphering device for the Navy for most of the 1920s. Driscoll was a mentor to Lieutenant Joseph Rochefort. Working together, they broke the Japanese Navy Manual code in 1926 and the Blue Book Code in 1930. In 1939 she made vital inroads in solving JN-25, the Japanese fleet's operational code used for the most important messages. She was able to achieve a partial solution to the cipher component of this system. Unfortunately she was transferred to a team working on the German naval Enigma cipher. But her work on JN-25 would be continued brilliantly by Lieutenant Joseph Rochefort whom she had influenced and trained.

Joseph Rochefort (1900-1976) was born in Dayton, Ohio, in 1900. He enlisted in the United States Navy in 1918. He was commissioned as an Ensign after graduating from the United States Navy's Engineering School. A fellow officer observed that Rochefort had a penchant for solving crossword puzzles and advanced skills at playing bridge. This officer recommended him for a Navy cryptanalysis class in Washington, D.C., where he had the good fortune to be trained by Agnes Meyer Driscoll. Rochefort was second chief of the Division of Naval Communications organization OP-20-6. He also received training in the Japanese language which would prove absolutely essential in his work leading up to the Battle of Midway.

In early 1941, Rochefort was sent to Hawaii as officer in charge of Station Hypo (H for Hawaii in the Navy's phonetic alphabet at the time) in Pearl Harbor. After the Japanese attack on December 7, 1941, Navy cryptanalysts were under great pressure to predict Japanese intentions for their next attack. Rochefort worked tirelessly trying to assess where their next major attack would fall. He would often go for days without emerging from his bunker, where he and his staff spent twelve hours a day--and sometimes more--working to decode Japanese radio traffic. Rochefort often wore slippers and a bathrobe with his khaki uniform and sometimes

went days without bathing.

There were differing predictions within the cryptanalysis groups as to where the attack would come. Some said the Aleutian Islands, some said Port Moresby in Papua, New Guinea, some even said the west coast of the United States. Rochefort and Station Hypo were adamant that the coming attack would be in the Central Pacific and convinced Admiral Nimitz that this would be the case. Rochefort believed that an unknown code group, AF, referred to Midway. One of Rochefort's staff, Jasper Holmes, devised a ruse to get confirmation that Midway was indeed the Japanese target. He suggested using an unencrypted emergency warning in the hope of provoking a Japanese response. The idea was brought to Nimitz and he approved it. The garrison commander at Midway radioed in plain language an emergency request for water because of damage to the water desalination system with only enough water left for two weeks. The Japanese took the bait and broadcast instructions to load additional water desalination equipment on the invasion fleet. The message also confirmed that the attack would come before mid-June.

Armed with this vital information, Admiral Nimitz was able to surprise and decisively defeat a superior Japanese force and save Midway from capture. Nimitz recommended Rochefort for a Navy Distinguished Service Medal. This recommendation was denied by Admiral King (Commander-in-Chief United States Fleet & Chief of Naval Operations) who disliked Rochefort intensely. He considered him "one of the most unmilitary-looking officers he had ever encountered." In addition to the denial, King, who was very vindictive, had Rochefort reassigned from cryptanalysis to command of a floating dry dock in San Francisco. However, Rochefort was decorated with the Legion of Merit Medal at the end of the war over King's objection.

The cryptanalytic work for the Battle of Midway shows us the importance of these efforts in winning the war. The efforts of brilliant cryptanalysts such as Agnes Meyer Driscoll and Joseph Rochefort are only two examples of the importance of this work in ensuring our victory (along with the work of the British code-breaking group at Bletchley Park) in World War Two. Agnes Meyer Driscoll continued her brilliant career after the war for the National Security Agency and retired in 1959. Rochefort headed the Pacific Strategic Intelligence Group postwar. He was eventually vindicated and was posthumously awarded the Navy Distinguished Service Medal

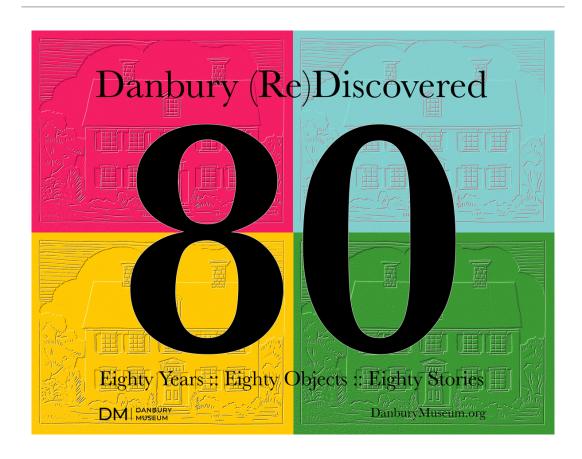
and the Presidential Medal of Freedom by President Regan.

John O'Donnell first became a history devotee while in elementary school. He was raised in Brooklyn and frequently went to Prospect Park which has a Revolutionary War monument. He was hooked!

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