Docent notebook

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Revision history

1.1	Updated SDK 222	6/20/2022
1.2	Add A34 Comet details, plus other small updates	4/2/2023
1.3	Many updates	4/15/2023
1.4	Added many pictures	7/25/2023
1.5	Many format updated	9/5/2023
1.6	Inserted Table of Contents	9/9/2023
1.7	Added 32 pound Carronade	11/21/23

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Docent notebook

Museum History

Opened May 2019. On July 4, 2013, the Military Vehicle Technology Foundation founded by Jacques Littlefield and located in Portola Valley, California, donated their entire collection of military vehicles to the Collings Foundation. A year later, the Collings Foundation auctioned off 120 of the vehicles to fund creation of a new museum, The American Heritage Museum.
Between 2013 and the opening in 2019, many vehicles were restored and repainted and the new museum building was built.

Bob Collings

The Collings Foundation is a nonprofit educational foundation founded in 1979 by Robert F. Collings and his wife Caroline Collings. The foundation's primary mission is to preserve and display transportation-related history, particularly in the fields of aviation and automobiles. Robert Collings, a successful businessman, played a significant role in the foundation's establishment by utilizing his personal wealth. Bob Collings made his fortune manufacturing the first stand-alone electronic cash register in the early 1970s as founder of Data Terminal Services

One of the notable aspects of the Collings Foundation is its collection of vintage aircraft and automobiles, which are often showcased to the public through tours, events, and educational programs. The foundation's efforts contribute to the preservation of historical artifacts and the dissemination of knowledge about transportation history to the wider public. Over the years, the Collings Foundation has become well-known for its dedication to historical preservation and education in the realms of aviation and automotive history.

Jacques Littlefield

Jacques Littlefield was a collector and enthusiast of military vehicles, known for his extensive collection and contributions to preserving military history. He was born on November 21, 1949, in San Francisco, California, to Edmund Wattis Littlefield and Jeannik Méquet Littlefield. His father was the CEO of Utah Construction Company, and his mother was involved in supporting the arts and the San Francisco Opera.
Littlefield's interest in military vehicles began at a young age, when he started building plastic models of them. This fascination grew over the years, and he eventually obtained his first full-size military vehicle in 1975—a World War II-era M3 Scout Car. In 1998, he established the Military Vehicle Technology Foundation to manage his extensive collection of more than 150 military vehicles and to oversee restoration projects.
He pursued his education at various institutions, attending Norma Moore Grade School, the Carey School, and the Cate School. He later studied at Stanford University, where he earned his bachelor's degree in 1971,

followed by an MBA two years later. After working as a manufacturing engineer at Hewlett Packard for five years, he shifted his focus to building his museum and restoration facility for military vehicles.

Littlefield also actively participated in various organizations and boards related to military history, education, and the arts. He served on the boards of institutions such as the General George Patton Museum, the Cate School, the Coyote Point Museum for Environmental Education, the Hoover Institution, the California Academy of Sciences, and the Filoli Center.

Tragically, Jacques Littlefield passed away on January 7, 2009, following a battle with colon cancer. His legacy continues through the preservation and exhibition of his collection. In 2014, a portion of his collection—160 vehicles—was auctioned off to fund the establishment of a new museum.

The American Heritage Museum, located at the Collings Foundation headquarters in Stow, Massachusetts, opened its doors in May 2019, showcasing over 85 vehicles from Littlefield's collection, thus ensuring his passion for military history lives on.

Artifact details

Lobby

17CM Mittlerer Minenwerfer (Middle Mortar)

- One of approximately 11 remaining world wide, Out of over 2,361 examples manufactured,
- This muzzle-loading, rifled mortar was originally developed for use during the Russo-Japanese War of 1905
- The 17cm, 110lb high explosive shells contained far more explosive filler than ordinary artillery shells of the same caliber.
- The lower velocity allowed for the use of explosives like Ammonium Nitrate-Carbon that were less shock-resistant than TNT, which was in short supply during WWI. The unstable nature of that material caused many premature detonations, making the job of crewing the Minenwerfer very dangerous.

QF 1-pounder Pom-Pom

- Designed in the late 1880s, the QF (quick fire) 1-pounder is a 37mm autocannon
- Developed by noted inventor and Maine native, Hiram Maxim. Known as the “Pom-Pom” due to its unique sound
- The U.S. Navy adopted the autocannon as a rapid-fire deck gun before the 1898 Spanish-American War.
- This example was one of the first sixteen of the type delivered to the U.S. Navy in March 1898. It was installed on the U.S. Revenue Cutter (USRC) Manning, which was built in East Boston, Massachusetts, that same year.
- The Manning was taken into U.S. Naval service and participated in the bombardment of Spanish positions off Cabanas, Cuba on May 12th, 1898.

1795 6-Pounder Cannon

- In 1776, an experienced brass-caster named James Byers received funding from the Pennsylvania Council of Safety to convert a porcelain factory in Philadelphia into a foundry to produce desperately needed brass cannons for the American Continental Army in their battle with the British.

- On a visit in March of 1777, Byers' craftsmanship won the attention of John Adams. A shortage of metal forced the foundry to melt down a shipload of French cannons and recast them as three 6-pound cannons.
- In the midst of production, Byers fled his foundry as the British marched into Philadelphia on September 26, 1777. When Washington's army retook Philadelphia on June 18, 1778, Byers was astounded to find his equipment still intact and resumed production beyond the conclusion of the war.
- **This cannon was manufactured by Byers Foundry on contract with the State of New York in 1795 and is thought to be among the earliest American made bronze cannons manufactured after Independence.**

1822 32-Pounder Carronade

- The Carronade is a short, cast Iron , smoothbore Naval cannon that served as a powerful short that fired a sizable shot with the intention of splintering hulls in close combat. As a muzzle-load cannon, it was designed as a smaller gun employing a smaller crew and loading faster than other cannons. As a result, it was well suited for the defense of merchant ships from privateers.
- This 32-pound (32#) Carronade, #8, was built in the Government Increase contract of 1822 by the West Point Foundry in Cold Springs, NY. According to the Thos.Jones complete inventory of the United States Navy in 1833, #8 was one of eighteen 32# Carronades in inventory with the Charlestown Navy Yard, the station of the USS Constitution, also commonly known as “Old Ironsides”.
- Though an 1820 order from the Board of the Navy Commissioners required frigates and larger to carry 42-pound Carronades, an exception was made for the USS Constitution to continue use of the 32# Carronades.
- It remained in inventory at Charlestown until its sale and transfer in 1888, where it was declared surplus. It was restored in 2022 to operational condition and has been fired as part of events here at the museum.
- Typical load would have been about 10 pounds of Black powder. For ceremonial firing here at the museum a much lighter 1 pound charge is used.
- The wooden base on display is made of reclaimed oak from a local Massachusetts mill built in the 1800. The wood was donated by former NE Patriot player, Matt Light.

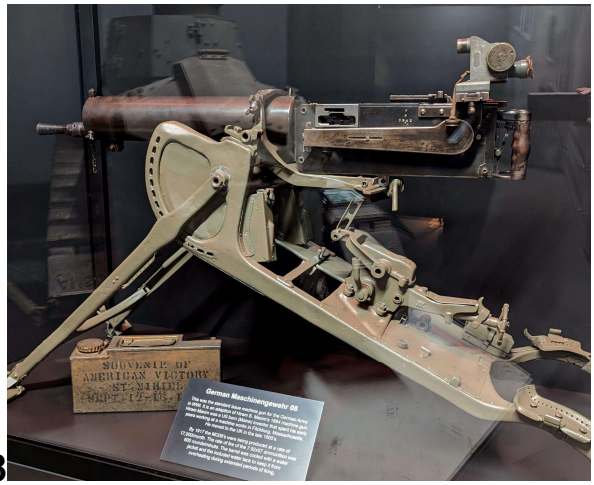
WWI Trench

M1917 Six-Ton Tank

- MVTF acquired this tank in Sept 2001 from a collector who restored it to running condition
- The M1917 is a US modified copy of the French Renault FT-17
- The FT-17 was first built in Sept 1917, but didn't see services until May 1918
- Only 64 tanks M1917 were completed by the armistice on Nov 11, 1918 and not one saw action as the first two arrived in Europe on Nov 10, 1918
- A total of 952 were built
- After the war, the US Army Tank corp was abolished. Tanks were passed to the Infantry and the National Guard. They remained in service into the 1930's
- By the 1920's, the US Marines would have 8 M1917 tanks in service and in 1927, sent 5 to Tientin, China to deter Chinese soldiers during a fierce civil war from attacking American interests.
- The Marine M1917's did not see action and returned to the US in 1928.
- The Marines disbanded the tank force on November 10,1928 and the tanks were given to the US Navy for disposal.
- Some of the Army tanks in storage were given to Canada at the outbreak of WWII for training purposes
- **During the restoration by the former owner (before MVTF), the original Marine Corps Green paint was discovered under the dirt and rust. This lead the owner to conclude that this was one of the 8 Marine Corps tanks and may be one of the ones that was sent to China**
- 15 other countries adopted the French FT-17 during WWI and 3 countries including the Soviet Union, Italy and the US built modified versions.

Specs

- 2 person crew, 5.5 MPH top speed, 30 mile range



German 1917 Maschinengewehr 08

- Maschinengewehr 08 (MG08): The MG08 was a heavy machine gun used by the German Empire during World War I. It was developed from the Maxim gun and was designed to provide sustained and accurate firepower to infantry units. With a firing rate of around 600 rounds per minute, the MG08 was a formidable weapon on the battlefield.
- The MG08 played a vital role in trench warfare, where its ability to deliver a high volume of fire made it a valuable asset for defending and attacking positions. It was typically crewed by a team of gunners who fed the gun with belts of ammunition and a water cooling system to prevent overheating.
- Around 17,000 MG08 machine guns were built per month by 1917. This highlights the significant industrial capacity that Germany possessed during the war. This level of production showcased the importance the German military placed on equipping their troops with powerful and reliable firepower.
- Maxim Gun and DWM: The Maxim gun, developed by Hiram Maxim, was the world's first practical fully automatic machine gun. Its design was revolutionary, using recoil energy to automatically cycle the firing mechanism and reload the gun. The gun's effectiveness and firepower were quickly recognized, and it found use in various military applications.
- Ludwig Loewe's company signed a contract with Hiram Maxim to produce the Maxim gun in Germany. This marked the beginning of its production in Berlin. Subsequently, DWM (Deutsche Waffen- und Munitionsfabriken) was established to handle the production of firearms and ammunition, including the Maxim gun.
- The success of the Maxim gun led to orders from several countries, including Austria-Hungary, Argentina, Switzerland, and Russia, which further showcased its international impact on military technology.
- Deployment and Evolution: Initially considered as an artillery weapon, the Maxim gun found its way into infantry and cavalry units due to its practicality and effectiveness. The German light infantry Jäger troops and various army corps conducted trials with the gun,

leading to recommendations for the deployment of independent gun detachments accompanying cavalry units.

- Over time, the use of machine guns like the MG08 became integral to infantry tactics and warfare strategies. The development of tactics involving machine guns, barbed wire, and trench systems marked a significant shift in the nature of warfare during World War I.

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Uniforms

German WWI Enlisted Combat Uniform

- Wartime Model 1916 tunic
- Regimental shoulder boards are for the Hannover Infantry Regiment 164 stationed in Hammeim-Holzminden

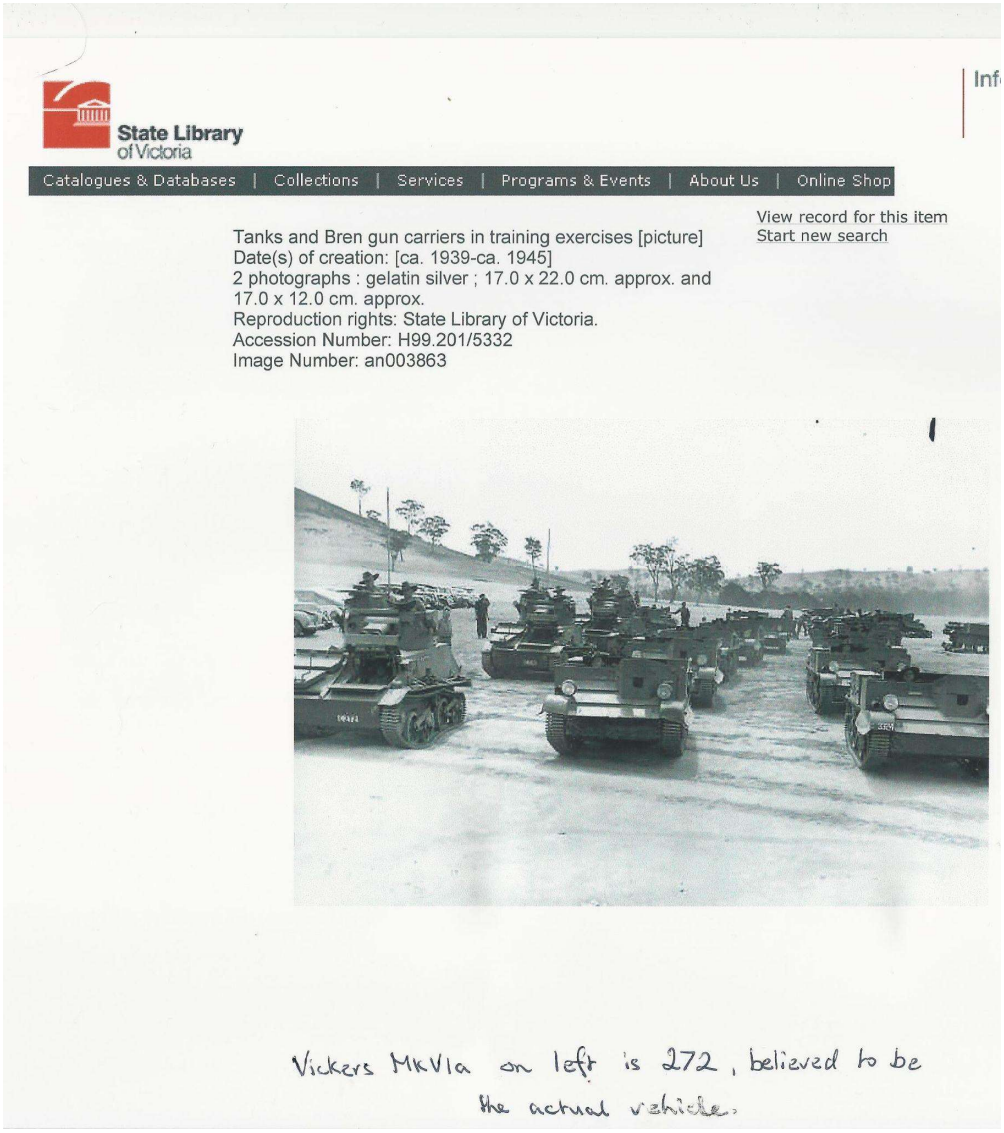
US WWITank Corp Jacket and Cap 

War Clouds

Vicker Light Tank MkVIa

- One of a batch of 10 Light Tank MkVIa ordered in March 1936 with Vickers Armstrong Elswick under Contract N0. 3021
- Arrived in Australia, August 1937
- Five were allocated to the 1st Light Tank Company, Australian Tank corps, based in Randwick, Sydney, N.S.W.
- The other five were allocated to the 2ns Light Tank Company based at Caulfield, near Melbourne, victoria. This company was not established until March 1939
- When delivered, the tanks bore the British WD Census numbers T1790 to T1799 and the British civilian registration numbers CMM 974 to CMM 983. The tanks were renumbered in Australian service numbers to DD270 to DD279. The DD prefix (dept of defense)was changed to C (Commonwealth of australia) in 1938
- This tank does not have any actual data plates to positively identify it, but strong clues have emerged.
    - Traces of sign written numbers on the turret emerge during sandblasting, “No72”. It is thought that this indicated it to be Australian tank number 272, with the theory it was first numbered 72. This theory was discounted by Michael Cecil, Head of the Military Technology at the Australian War Memorial, but he shared a list of tank numbers and corresponding engine serial numbers
    - The engine serial of this tank corresponds with tank number C272
    - Assuming that the engines were not swapped between tanks, it is reasonably safe to assume that C272 is this tank.
- All ten tanks were giving official given names of Australian wildlife, and tank “272” was called “Platypus”
- It appears from photographic evidence that tanks 275 to 279 were with 1st Lt. Tank Co. in Sydney and those numbered 270 to 274 were with the 2nd Lt. Tank co. in Melbourne.

- This actual tank would have appeared to have served with the 2nd Light Tank Company *Source F.V. Restorations & Repairs Lees Road, Willesborough, Ashford, Kent, TN24 0NW, UK
- **This is the only Vivkers Mk VI A on public display in the U.S.**



Vickers Light Tank MkVIa supplied to Australia

	WD No.	UK Reg. No.	Makers No.	Aust. Army No.	Engine No.	Name
1	T1790	CMM 974	VAE 1556	270	S 9466	Kangaroo
2	T1791	CMM 975	VAE 1557	271	S 9467	Koala
3	T1792	CMM 976	VAE 1558	272	S 9396	Platypus
4	T1793	CMM 977	VAE 1559	273	S 9468	Wallaby
5	T1794	CMM 978	VAE 1560	274	S 9469	Wombat
6	T1795	CMM 979	VAE 1561	275	S 9470	Bower Bird
7	T1796	CMM 980	VAE 1562	276	S 9471	Emu
8	T1797	CMM 981	VAE 1563	277	CL 12346	Kingfisher
9	T1798	CMM 982	VAE 1564	278	S 9523	Kookaburra
10	T1799	CMM 983	VAE 1563	279	CL 12396	Magpie

Panzer I Ausf A

- This first model came into production in late 1934, and continued until early 1936. Around 800 were built
- There are about five Ausf A on display and one to be restored left in the world.
- Canadian forces captured this Panzer IA in Europe during WWII and brought it to Canada where it eventually ended up in the Canadian War Museum.
- Jacques Littlefield wanted to add the Panzer I to his collection. He traded several of his own tanks for this single Panzer I.

- Greg Taylor, of Taylor Restorations and Consulting, had restored many of Jacques Littlefield's tanks. He decided to take on the monumental effort of restoring this Panzer back to its original condition.
- Greg was nearing completion of the project when unfortunately, he passed away in May of 2020. With nothing left to do but to put the meticulously restored parts back together, the Panzer IA was moved from his shop in Nevada to the American Heritage Museum where re-assembly was finished

German 7.5CM Leichtes Infanteriegeschutz 18

7.5 cm gun produced by Rheinmetall in the late 1920s. This gun had several versions designed for different purposes, including mountain warfare, airborne use, and infantry support. Here's a breakdown of the information you provided:

Development and Basic Design:

- The development of the gun began in 1927 by Rheinmetall.
- The gun was equipped with an armored shield to protect the crew operating it.

Mountain Gun Variant: 7.5 cm le.GebIG 18:

- This version of the gun was designed for mountain warfare.
- It could be disassembled into six to ten packs for transport.
- The heaviest pack weighed 74.9 kg.
- These mountain guns were typically assigned in pairs to mountain battalions.

Airborne Gun Variant: 7.5 cm le.IG 18F:

- Six of these airborne guns were manufactured in 1939.
- These guns were designed for airborne operations and could be disassembled into four loads, each weighing 140 kg.
- The airborne variant had smaller wheels and lacked an armored shield due to its specialized use.

- Notice the wooden wheels. The German Wehrmacht (Army) was heavily dependent on horse and this was designed to be pulled by horses. Later versions had steel rims and were meant to be pulled by motor vehicles.

25MM Hotchkiss Anti-Tank Gun

- French anti-tank gun from the 1930s, built by the Hotchkiss arsenal, that saw service in the Spanish Civil War, the Second World War and the Indochina War.
- This model was accepted for service in 1934 under the designation canon de 25 mm semi-automatique modèle 1934 (“25 mm semi-automatic gun model 1934”, generally shortened to canon de 25).
- In action in the Battle of France in 1940, it was found that the projectile was too small to be very effective against German tanks, especially at longer ranges. It
- Despite its low caliber which forced its servants to target precisely the weak points of the opposing tanks, it remained for the time a powerful anti-tank gun against the Panzer II, III and IV which constituted the majority of the German tanks during the invasion of France by the Nazi regime.
- The 25 illustrated itself at the Battle of Stonne, during the first combat of May 15, 1940 where a single 25mm gun laying in ambush on the edge of the village neutralized 3 Panzer IV tanks in 5 minutes.
- During the defense of Rouen on June 9, 1940, when one of them located at the foot of the old Corneille bridge placed in its line of sight the German tanks which descended the rue de la République and fired several shots, destroying two panzers.

Mercedes-Benz W31 Type G4 COMMAND CAR

- 57 built between 1934 and 1939
- Weights 8,157 lbs
- Top speed of 42 MPH, limited by the off road tires.
- These were used as parade cars for high ranking Nazi officials
- This vehicle is a full functioning replica
- A total of 7 originals are estimated to remain with approximately 3 in original condition today. Estimate value per vehicle of around $3M

Third Reich Schellenbaum

- The Schellenbaum was a musical instrument consisting of a pole ornamented with a canopy (pavillon), a crescent, and other shapes hung with bells and metal jingling objects, and often surmounted by horsetails. Nicknames the Jingling Johnnie
- Used during parades and rallies
- German military and police units would have customized Schellenbaum with they unit on the smaller banner and the center of the star

Uniforms

German Army Panzer Enlisted

The German army units were differentiated by the color of the piping used on the shoulder straps. Tank crews and others assigned to armored units like tank destroyers or armored trains had pink piping.

NAZI Political Leaders Uniform

- The political structure under the NSDAP, which most people refer to as the NAZI party was very complex
- There four main divisions for Local, District, Regional and National political leaders.
- This uniform is piped in blue for a nmid-ranking Local (orts level) political leader

Allgemeine-SS NCO Uniform

- One of the most recognizable uniforms from the Third Reich is the black SS outfit worn by the early SS troops
- The Allgemeine or general SS started in 1925 as Hitlers personal Body Guards
- This uniform is for the rank of SS-Hauptscharfuhrer (high ranking sergeant) from the Thuringen district
- The black SS uniforms were designed and manufactured by clothing designer Hugo Boss

German Hitler Youth Outfit

- All German boys between the ages of 14-18 were required to join the Hitler Youth.
- By 1940 there were over 8 million members
- The members were taught many military techniques
- This uniform was from Group #664 of the South Baden district (South Baden borders France and Switzerland)
- The blue piping on the shoulder boards means that he was with a flight unit

Japanese Army Pilot’s Coveralls

- Made of brown cloth lined with rabbit fur to keep the pilot warm in unheated cockpits
- The Japanese national flag called the Himomaru is draped over his belt and has Kanji thats includes the term “Step on China”

Japanese Army uniform

WWII Japanese Wool Army uniform