

Chapter 1

Great Hall

OBJECT = CITY BELL

City Bell

The large bell hanging in the history center is over 100 years old. Andrew Fulton, a famous bell maker, cast it in 1866 on First Avenue between Short and West Street, Pittsburgh.

It is the largest bell ever cast in this city and it is unlikely that a larger bell will be cast anywhere in the country because its tremendous weight and its destructive vibration, when rung, make it hazardous to hang overhead.

It was rung originally by a mechanism, which dropped a weighted clapper about two inches.

At the time it was made there was no building though to be strong enough to support it. It was therefore hung in a structure like an oil derrick at the corner of Ross and Diamond Streets. It was later suspended for a time in City Hall (corner of Smithfield and Virgin Alley).

During the years 1872-1892, it was a fire bell but it attracted too many people to suit the fire fighters and it was then used as a time signal. Its single stroke every three hours was responsible for setting thousands of watches throughout the 24 hours.

The bell has been sounded at many historic events. It tolled when the bodies of President Garfield and General Sherman crossed the country. It announced the Armistice of November 11th, 1918, and other events of importance.

For many years it was the custom of the city fire marshal to visit the society on April 10th to commemorate the grate conflagration of 1845. He brought his own sledge and, keeping count of paper, would sound 1—8—4—5 strokes at 12:00 noon, the hour in which that fire was supposed to have started. We continue the custom.

The bell was donated to this society, October 26th, 1920.

Fire Bell, Cast by A. Fulton's Sons & Co., c. 1866 (above)

This 4,000-pound bell, reputed to be the largest ever cast in Pittsburgh, served as the city's fire alarm from 1866-1892. It was housed in a wooden tower erected at the corner of Ross and Diamond streets downtown. After the bell was replaced as an alarm, it continued in service as a time-keeper chiming every three hours around the clock. Later it signaled the passing of famous men and the end of World War I. For years, the bell

rang annually on the anniversary of Pittsburgh's 1845 fire. It was almost lost during World War II when the Historical Society considered donating it to a scrap metal drive.

The Eicheley Company moved the bell to the Historical Society's Oakland building in 1921. The same firm moved the bell again when the Society moved into the new History Center in 1996.

Gift of Pittsburgh City Council and the Allegheny County Commissioners

OBJECT = TROLLEY

Pittsburgh's Trolley History

Sources: Compiled by Johnna A. Pro and Scott Becker, executive director, the Pennsylvania Trolley Museum; Port Authority; "Pittsburgh of Today, Its Resources and People," by Frank C. Harper, copyright, 1931.

Pittsburgh's trolley history dates to the late 19th century when the state Legislature passed a law allowing "motor power companies" to operate passenger railways by cable, electrical or other means. Since then, the city has been at the forefront of trolley transportation.*

- **JUNE 1887.** Pittsburgh Traction Co. constructs a cable beginning at the foot of Fifth Avenue and running east on Shady, Penn and Highland avenues. The distance is 5.5 miles and it opens for passengers on Sept. 12, 1889. Cable lines are operated until 1897.
- **THE LATE 1890's.** The first electrical line is constructed from South 13th and Carson streets to Knoxville Borough. That is followed by the development of successful and consistent electric trolley service on the North Side and the South Side. In the ensuing years, competing lines are built by 190 trolley operators in the city. The wooden trolley cars have four wheels. "It was really a hodgepodge," says Scott Becker, executive director of the Pennsylvania Trolley Museum in Washington, near the Meadowlands.
- **JAN. 1, 1902.** Pittsburgh Railways Co. is formed as a result of several companies consolidating their operations. There are 1,100 trolleys in operation in the city and the turn-of-the-century car has eight wheels, high steps and narrow doors making traveling slow and cumbersome, particularly for women whose clothes don't allow them to negotiate the cars easily. Pittsburgh Railway has 400 miles of single track; carries 178.7 million passengers a year and has revenues of \$6.7 million.
- **1912.** Pittsburgh's trolley system is big and P.N. Jones, head of Pittsburgh's Railways, heads the effort to produce a standard car. The city tries out double-decker cars – and about a dozen were built between 1912 and 1924 – but they never really catch on here.
- **1915.** Pittsburgh Railways decides that the new, low-floor trolley with its sloping floor is going to be its standard car. The company builds 1,000 of the between 1915 and 1927. The steel cars run on 600 volts of direct current and feature rattan seats, beautiful woodwork, windows that open and shaded light bulbs. The trolleys are painted orange but their colors fade to yellow, prompting most people to call the yellow trolleys. They are used in Pittsburgh until the mid-1950s, when many trolleys are phased out in favor of buses. In the ensuing years, Pittsburgh Railways experimented readily with a variety of cars, testing aluminum, fiddling with control systems and trying a variety of options with wheels.
- **1926.** Pittsburgh Railways operate 590 miles of single track; carries 396,679,675 passengers a year and has revenue of \$21.7 million.
- **1928.** Pittsburgh Railways begins producing high-speed trolleys for its lines that run to Washington, Pa., and Charleroi. The company makes 15 cars that are painted red and feature bucket seats. Portions of the Charleroi line remain in

service today as the Port Authority Library Light Rail Transit line. A portion of the Washington line survived as the Drake line, service that will end Saturday.

- **THE 1930's.** Pittsburgh, like the country, is in the depths of the depression. Pittsburgh Railway is losing ridership, but the company does not lose its tradition of supporting innovation. The company is enthusiastic about the ideas for a new car being developed at the request of the American Electric Railway Association Advisory Council. The plan for the car's development is overseen by the electric Railway Presidents Conference Committee, which turns to Westinghouse for help designing the car.
- **JULY 26, 1936.** The first Presidential Conference Committee car - #100 – goes into service in the city. Pittsburgh Railways, trying to lure Depression-weary riders back to the trolleys, promotes the car in newspaper advertisements and on sandwich boards and with demonstration rides. It becomes the first PPC car to carry passengers for a fare on Sept. 26, 1936, when it covered the 50 Carson Street Route.

Over the next 12 years, Pittsburgh Railways orders 666 of the cars – at \$28,000 a piece – from the St. Louis Car Co. to replace the oldest trolleys in the fleet, the high-floor trolleys and the yellow trolleys. The PCCs were painted red and cream.

- **SUMMER, 1953.** Trolley Service, which had boomed during World War II and Korean War years, is scaled back to the border of Allegheny County.
- **MARCH, 1964.** Allegheny County's Port Authority Transit is formed to unify public transit services. Despite the declining trolley use, the Port Authority inherits 283 PCC trolley cars and 219 buses.
- **1964 to 1967.** Many rail routes are converted to bus routes.
- **1968.** The Port Authority is operating just 58 miles of track.
- **1972.** The 95 remaining PCC cars servicing the South Hills get new paint jobs, including one that gets a psychedelic look.
- **1981.** The Port Authority decides to try to refurbish 45 PCC trolleys. The \$763,000 cost is prohibitive and only 12 are done before the program is abandoned in 1987.
- **JULY 3, 1985.** Trolley Street operations in the city cease when the downtown subway is opened.
- **AUG. 1, 1988.** PCC cars are removed from operation because of deteriorated electrical wires. Twenty-seven of those are retired and used to supply parts for the ones that remained in operation. Only three remain today. They are numbers 4004, 4408, and 4009. Each has traveled about 2 million miles.

OBJECT = JEEP

A brief history of the JEEP

The Jeep, that wonderful little vehicle that does just about everything. It seems like it has been with us for ever but it didn't start its life until 1940. In that year because of World War II the US Army issued a set of specifications. For a general purpose utility vehicle. The specifications were as follows:

1. The public tender
2. The need for a go anywhere reconnaissance vehicle was being felt by the Army since World War I and this promoted the appearance of several proposals over the years. After several tentative versions the specifications laid down by the Quartermaster Corps, on July 7, 1940, called for:
 3. A driving front axle with 2-speed transfer case including provisions for disengaging the front axle drive.
 4. A body of rectangular design with a folding windshield and 3 bucket seats.
 5. Increased engine power (presumably in respect to the Belly-flopper prototype).
 6. Means for towing.
 7. 30-caliber machine gun mount.
 8. Blackout lighting.
 9. Oil-bath air cleaner.
 10. Hydraulic brakes.
 11. Full floating axles.
 12. Wheelbase of 80".
 13. Maximum height of 40".
 14. Maximum weight of 1275 lbs.
 15. Approach and departure angles of 45 and 40 degrees, respectively.
 16. Must reach 50 mph on hard surface.
 17. Special bracing for a pintle hook setup.
 18. No aluminum to be used for cylinder head.
 19. At least 4 cylinders.
 20. Eight of the 70 vehicles to made had to be four-wheel-steering.

Ford, American Bantam and Willys-Overland answered the call. Bantam built the first Jeep in 1940. It was the Bantam Pilot (BRC-60). Seventy of these units were produced. Ford produced two units called the PYGMY. In 1941 they produced 3700 units called the Ford GP Willys produced 1553 Model MA s. From there the rest is history.

The name Jeep also has an interesting story to it. The first coinage of the word "JEEP", as applied to a motor vehicle, occurred during WWI. According to Major E.P. Hogan, who wrote a history of the development of the Jeep for the Army's Quartermaster review in 1941. The word "Jeep", he wrote. "is an old Army grease monkey term that dates back to WWI and was used by shop mechanics in referring to any new motor vehicle received for a test." Jeep was still used in Army motor pools well into the 1930's as general purpose or "GP" for short. Though in a 1941 Army manual it refers "GP" as "Government 80" wheel base car (Jeep).

Before then in 1936, the term 'Jeep' was it introduced to the world by a Popeye comic strip character, "Eugene the Jeep". The only words Eugene could say were "Jeep, Jeep", and "GP" then became "Jeep". Then the "Willys Quarter-Ton Jeep was 1st used

by the U.S. military in WWII. When the WWII Jeep was issued during wartime, the term "Jeep" was here to stay.

In 1970 AMC (American Motors Corp.) bought Jeep from Kaiser. AMC brought out the CJ 7 and put a V8 in the Jeep. They also went against the trend for this type of vehicle and offered a automatic transmission.

They also gave us the Sporty 2 door Full Size Jeep Cherokees and the family Wagoneer station wagon and to top that off they brought out the smaller 2nd generation Cherokees. In 1984 the down sized Cherokees appeared. It received a great power increase in 1987 with the introduction of the inline 4 Liter engine.

This success story lasted until 1987 when AMC went out of business and the Jeep was acquired by Chrysler Corp.

A further note to the history of the Jeep was provided by Rodney Hawk of Butler, Pa.. " The American Bantam Car Works of Butler, Pa answered the call of the army and designed and successfully tested and demonstrated the jeep for the Army. Willy's Overland and Fords entries did not meet the Army's specs. American Bantam had a very limited production capacity so the army took Bantams entry and gave it to Willy's and Ford to produce. Unfortunately there was no recognition or compensation for American Bantam and the company shortly went bankrupt.'

INVENTION OF THE JEEP

A state historical marker erected by the Pennsylvania Historical and Museum Commission (PHMC) serves to remind the world that Butler, located in western Pennsylvania, about thirty-five miles north of Pittsburgh, is the birthplace of the vehicle now universally know as the jeep, built by the American Bantam Car Company. The factory, formerly the American Austin Car Company, which had produced more than twenty thousand vehicles, was acquired by the American Bantam Car Company in 1936. Within two years, the company was manufacturing Bantam cars and trucks.

On June 27, 1940, the U.S. Army Quartermaster Corps released specifications and asked for proposals to develop a four-wheel drive light military vehicle. The deadline for submitting a proposal was July 22! Bantam scrambled to find someone who could help the company submit a design.

Finally company officials convinced Karl K. Probst (about 1882-1963), a Detroit engineer, to undertake the challenge. Bantam's leaders imposed one condition: they could not pay Probst unless the company won the contract. Despite initial reluctance, Probst went to work on July 17, 1940, and in just two days laid out plans for the Bantam prototype. Bantam submitted its bid, complete with blue-prints, on July 22. The first Bantam prototype – cobbled together from bits and pieces of other vehicles – was completed and driven to Camp Holabird in Dundalk, near Baltimore, Maryland, on September 21, meeting the forty-nine day deadline – with thirty minutes to spare!

The Quartermaster Corps subjected the prototype to rigorous off-road trials, concluding, "this vehicle demonstrated ample power and all requirements of the service." The Ford

Motor Company and the Willys Overland Company soon submitted their own prototypes, based on Bantam designs, which had been shared with them by the Army. Ultimately, the Army ordered fifteen hundred units from each of the three manufacturers. Ford began delivering vehicles in April 1941, followed a few weeks later by Bantam and Willys. However, in light of Bantam's tenuous manufacturing capabilities and precarious financial condition, and the strength of its competitors, Ford and Willys were eventually granted contracts for mass production of the jeep. In the end, Bantam manufactured less than twenty-seven hundred Bantam Reconnaissance Cars (BRC-40s), and spent the World War II years building heavy-duty trailers for the Army. The company closed in 1956.

The state historical marker, dedicated in 1993, stands at the company's former factory building on Hansen Avenue in Butler. A 1941 Bantam Reconnaissance Car, bearing serial number 1808, is in the collection of PHMC's Pennsylvania Military Museum in Boalsburg, Centre County. It is one of only a handful of surviving Bantams. Automobile enthusiast Leeland Bortmas, of Butler, restored and donated the jeep to the museum in 1994. Bortmas served in the 28th Infantry Division for four years. The 28th Infantry Division Shrine and the 28th Division World War II Memorial are located on the ground of the museum.

WWII HERO MAKES A COMEBACK, VEHICLE THAT WON WORLD WAR II ON DISPLAY AT HISTORY CENTER

by Marylynn Pitz for The Pittsburgh Post-Gazette

It's the mother of all jeeps, as well as all those Humvees prowling the sands of Iraq.

The last jeep from the original batch of 70, made in 1940, is going to be parked in Pittsburgh for a while, not far from its birthplace.

For about two years, the car will be in the Great Hall of the Senator John Heinz Pittsburgh Regional History Center, where it is on loan from the Smithsonian Institution.

"That happens to be the only one that's left. There are no other of the 70 prototypes that were built between October of 1940 and December of 1940 that are known to exist," said Leeland Bortmas, director of the Butler County Heritage Center and an expert on jeeps.

Jeep is now a trademark of Chrysler, but GIs coined the term in 1940 for the general-purpose vehicles created for World War II. The car also was known as a "peep" or "blitz buggy," but jeep was what stuck.

The vehicles quickly attained hallowed status.

Gen. George Marshall once said if it hadn't been for the square-bodied jeep, the United States would not have won World War II, and said it was America's greatest contribution to the war.

The prototype of the vehicle that became known as the jeep was designed and made in Butler after Karl Probst, a brilliant engineer, roughed out a sketch of "the little car that could" in about 18 hours.

The jeep to be exhibited in Pittsburgh was made Nov. 29, 1940, at the American Bantam Car co. in Butler; and tested at Fort Know, Ky.

The round-nosed car, with a round grill and squared, angular fenders, was retired to the Smithsonian in 1944 after 100,000 miles of service,

“The jeep,” Bortmas said, “could pull a 52-car train with railroad wheels attached to the jeep axles. Service chaplains used them as a chapel. They laid their sacraments out on the hood. Also, stretchers were used on the hood for wounded personnel. They put reels of telephone wire on the back of the body. It was just a universally adaptable vehicle.”

How the jeep was designed and produced for an anxious U.S. Army is a story of ingenuity and military victory.

There is a bittersweet element, too, because the four-wheel drive vehicle did not, as its makers hoped, save the American Bantam Car Co., which closed in 1956.

Since 1939, Bantam had designed small cars like the American Austin and the American Bantam. So, when the U.S. Army sent out a list of specifications for a general purpose vehicle, Bantam took up the challenge, then tried to persuade Probst to leave his business in Detroit and design a prototype.

Probst said no until Brig. Gen. Bill Knudsen urged him to do the job for God and country. Probst drove across the Midwest in his '38 Buick, stopping at parts houses and at Studebaker in South Bend, Ind. Probst had a Studebaker rear end designed to be used as the components for a four-wheel-drive vehicle.

Once in Butler, Bortmas said, “he sat down at the drawing board. In 18 hours, he drew up the rough plans for the first jeep.”

Workers who built the first prototype ate and slept at the factory and “did everything in their power that was humanly possible to get that thing built and then they got shafted,” Bortmas said.

When the prototype arrived at Camp Holabird in Baltimore on the afternoon of Sept. 23, 1940, about 200 Army soldiers, officers and executives from car companies like General Motors, Ford and Willys-Overland were waiting.

The car company executive, Bortmas said, “had all placed a bet among themselves that Bantam couldn't do it. They were very anxious to see what they [Bantam] had developed.”

The verdict came quickly from the Army's chief testing officer.

After [he] tested the vehicle, he climbed out of the mud-spattered, grass-stained vehicle and said, 'You know, gentlemen, I've been testing Army vehicles for the last 20 years. This is the most significant vehicle I have ever driven. If the Army accepts this vehicle, it will go down in history,' Bortmas said.

The other car manufacturers copied Bantam's prototype immediately. While Bantam's representatives complained, "All these other car makers were taking photos and making notes and taking measurements and crawling under the thing," Bortmas said.

After initial testing, the Army ordered 70 cars.

In January, 1941, the U.S. Army ordered 1,500 general purpose vehicles each from Bantam, Willys-Overland and Ford and set the delivery deadline for May 1, 1941.

"Willys-Overland and Ford got into the picture because the Army just didn't believe that little Bantam could produce the numbers required by the Army. They turned to Willys and Ford and allowed [them] to have the design plans produced by Bantam. And Bantam was not compensated for that. The Army said we've got a war upcoming and we need these things right away," Bortmas said.

Unlike Bantam, Ford and Willys-Overland had fast production lines that turned out a car about every two minutes, while Bantam turned out 30 cars per shift, or about 90 per day. Eventually, the Army decided Bantam couldn't produce them fast enough, and Willy-Overland and Ford became the suppliers.

The 70 jeeps built between October and December of 1940 each cost \$2,399.40. Later, the Army got a bargain, because the last 2,500 jeeps Bantam built were sold for \$955.59 each, less 1 percent for payment in 10 days. They were known as Bantam Reconnaissance Cars and about 40 of them are left.

David F. Halaas, museum division director at the Heinz History Center, said the men who drove "Old No. 1" to Baltimore never forgot that trip.

Probst was in the driver's seat and beside him sat Harold Crist, Bantam's plant manager.

In an interview afterward, Probst said, "We drove slowly at first, telling ourselves it was important to break the vehicle in. But as we wound through the hills of Pennsylvania, the 5 o'clock deadline we worked toward for those seven weeks seemed to come closer. To make Holabird come closer, we were soon pushing the car to the limit and it really was fun."

"That poor little vehicle was pushed and prodded and banged and bumped. It went up 60 percent grades in streams, mud and sand and passed every test they could devise to defeat this little engine. The Army said well, you did it. And then they turn around and don't give them the contract," Halaas said.

Bantam was foundering financially and had not produced new car models for 1941.

"The only way they would stay afloat was if they could get this contract. They were one of only 135 car companies that could meet the Army's specifications in the time allowed. They had 49 days. That's unbelievable. It makes you want to cry for these guys," Halaas said.

Bantam's Contribution to Butler County History

The American Bantam Car Company invested, developed and produced one of the most famous vehicles in the world – the jeep. And it all happened in 1940 on Bantam Avenue, Butler.

At the time, the war in Europe was escalating, but America was still standing on the sidelines. Despite that fact, the U.S. Army invited 135 tractor and auto manufacturers to come up with a design for a four-wheel drive, 40 horsepower, 1,300-pound (that was about half the weight of most vehicles of the era) scout car. The chosen designer would then be expected to have a working prototype available for a test run within 49 days.

Only two companies – Bantam and Willys-Overland Motors, Inc., of Toledo, Ohio – answered the call. Although Willys had the lower bid, it couldn't guarantee delivery within the specified timeframe. Bantam got the contract. It was dated August 5, 1940.

Initially, the news was greeted with enthusiasm, striking a potentially lucrative deal with the Army would infuse this financially beleaguered company with much needed capital. But then reality set in. By any measure, the task was impossible.

A small team of engineers decided the impossible was within reach. Maintaining a near frantic schedule for the next seven weeks, this group somehow managed to bring the layouts and spec sheets to life.

On September 23 at 4:30 p.m., Bantam's Light Command and Reconnaissance Car motored through the gates of Camp Holabird, Maryland. There was a half hour to spare.

For the next 30 days – and 3,600 miles – the Army drove it up and down steep grades, over rough terrain and through the Hell-Hole (a 300-foot-wide, three-foot-deep mud bath).

The car passed muster. And Major Lawes, the purchasing and contracting officer, reportedly declared: "This vehicle is going to be absolutely outstanding."

JEEP

Western Pennsylvania is the birthplace of the world-famous jeep. In 1940, 19 months before America went to war, the U.S. Army requested bids for a reconnaissance car that would take the place of the motorcycle.

The Quartermaster Corps sent bid packages to 135 automakers across the country, but most companies found the tight deadlines and strict specifications impossible to meet. Only the American Bantam Company of Butler, Pa. and Willy-Overland of Toledo, Ohio responded in the required time. Bantam won the bid. With a nearly-impossible 49-day deadline, Bantam hand built a prototype and delivered a vehicle that would help win WWII.

Though Bantam developed the prototype, the Army deemed them unable to manufacture jeeps in the huge volume needed for the approaching war. The production contracts went to Ford and Willys-Overland, while Bantam was given a "consolation"

contract to build jeep trailers. The Civilian Jeeps produced by Willys-Overland following WWII and the SUVs and four-wheel drive vehicles that crowd our highways today, owe their existence to the original Bantam jeep produced here in Western Pennsylvania.

OBJECT = PITTSBURGH'S 250TH ANNIVERSARY QUILT

Created by 23 local women as part of the Quilter's Weekend held here at the History Center on January 26th and 27th, 2008, the 25 squares on this quilt represent significant moments, products, icons, and firsts in the history of Pittsburgh and the region. Karen Montgomery, of the Quilt Company, contributed much of the material used and Barbara Thompson completed the quilting, using a long-arm quilting machine.

Gift of The 250 Quilters

Row One

1869 – H.J. Heinz Company – Michelle Ambrozic and Mildred Bosilevac
1978 – First Life Line Helicopter, Allegheny General Hospital – Esther Tarbi
1969 – McDonald's Big Mac, Uniontown – Lori Mish
1920 – First Radio Station Broadcast, KDKA – Lori Mish
1891 – Pittsburgh Pirate Logo – Mildred Bosilevac

Row Two

1929 – Street Cars – Muriel Petschke
1898 – Kennywood Park – Carol Hartman
1921 – KDKA First Baseball Broadcast – Trudy Russell
1758 – Fort Pitt Block House – Terry Carmen
1893 – Zambelli's Pittsburgh Fireworks – Trudy Russell

Row Three

1859 – Carnegie Museums – Jewell Young
1904 – Strickler's Banana Split, Latrobe – Donna Costa
1865 – Pittsburgh Steel Plant – Amy Mangis
1928 – Sixth Street Bridge – Kate Candreva
1967 – Pittsburgh Penguins Logos – Gail Rowles

Row Four

– Horne's Peace Tree – Tina Pickl
1893 – Phipps Conservatory – Loretta Kush
1932 – Pittsburgh Steelers – Mary Riethmiller
1870 – Monongahela Incline – Barb Thompson
1926 – University of Pittsburgh, Cathedral of Learning – Ruth Ley

Row Five

– Steps of Pittsburgh – Lyn Kauffnuger
1967 – Pittsburgh Penguins – Darlene Brown
1905 – Nickelodeon, First Movie House – Nancy Conner
1929 – Islay's Klondike Bar – Patsy McKenna
1968 – Mr. Roger's Neighborhood – Chris Gillespie

OBJECT = COOPER DOUGLAS MURAL

Cooper mural facts:

Took 1 1/2 years to paint

Painted in a studio in Bloomfield and at The Carnegie (where the video was shot)

Cooper was painting at the Carnegie in 1992

The entire mural is 120 feet long

Only the center half on display in History Center Great Hall (Southside and Oakland are the main neighborhoods)

The other sections will be placed throughout the History Center – Mr. Cooper is currently working with museum staff to determine their placement.

Almost every panel is oriented with some part of the downtown in it

Most panels have the rivers winding through them

Background:

This mural grew out of two desires of Douglas Cooper's – to freshen his style of painting as he felt his work was becoming stale and to work with the elderly (he has fond memories of sharing long conversations with his grandmother).

He started this project by going to Vintage, a senior citizen's center and asking elderly Pittsburghers if they would draw their memories of the city. The result was two fold, it created an atmosphere of unpredictability in the direction of the mural and it offered a deep "human" content that Cooper says he could not have created by himself.

His thesis might be "Every city has a multiplicity about it. Everybody remembers something different when they look at the same location because of their history, their experience." For instance, Cooper lived for a time in a house across from old Forbes Field. The site is now a parking lot. But every time he goes past that area he sees in his mind his old house, or the way it was. For another person who never knew that location except as a parking lot there is a different memory, or reality to them for that section of Oakland.

Visitors might notice or reflect on the repetition in the mural. Cooper described the repetition like the melody from a symphony that is repeated and enlarged on throughout the composition. He has used the same technique and replayed certain parts of the mural not in an exact duplication of "notes" but with a slight variation of a theme.

Technique:

There are three perspectives of time and memory in the painting:
the pen and ink drawings from the elderly (their memories)
the charcoal (as it is now or the current reality)
the color (Cooper's memories)

This is a "Map of Memories" and is drawn in two distinct ways:

1. as a map that shows how you get from one place to another
2. a visual "sense" of the city with its twists and turns and slopes that make you feel the houses might just slide off their foundations

Cooper utilized two different "styles" of painting that are tied to the above points:

1. precise, sophisticated
2. loose, angular

THE COOPER MURAL: WALL-TO-WALL MEMORIES

By: Ann Curran

What's black and white and read all over? That old newspaper riddle could describe the University Center's largest work of art – the 200-foot-long, 12-foot-high Cooper mural. The charcoal drawing on the west, north and east walls of the second level of the rotunda above the new center's main entrance prompts impromptu finger-pointing and arm-waving discussions.

Students, plopped down on the carpet munching “O” fries, follow the Monogahela River on the mural as it meanders all the way to the Homestead steel works and farther upstream to a recreation of Carnegie Steel. Not everyone notices the Pinkerton barge on fire in the river, a tribute to Carnegie Steel's infamous strikebreaking effort of 1892.

“Not one of Carnegie's finer moments,” muralist Doug Cooper says, almost under his breath.

“It wouldn't have happened if he were here instead of in Scotland,” a writer counters wryly.

“Bullshit,” replies Cooper (A '70). Clearly this White Plains, N.Y., native has become an assimilated Pittsburgher.

A freshman, standing before a drawing of the present and future campus on the west wall, explains to his parents where he lives in relation to the rest of campus. Alumni almost get teary-eyed seeing The Greeks bar of the 1960s go up in flames on the mural. Or one exclaims, “Remember when the Glenn Miller Band played at the gym? Look, there they are!” Seeing the Buggy Race route lined with students and buggies forever in action gliding by Phipps Conservatory, viewers smile, quietly taken back to their own relays.

Reaction to Doug Cooper's mural has astonished the architecture professor, who spent a year making it, a year in which he also underwent cataract operations on both eyes. “A lot of people have come to see the mural who have nothing to do with the campus,” says Cooper (A '70s). “People tell their aunts and uncles; then the aunts and uncles show up. I run into people around the city who have seen the mural, and they have nothing to do with CMU.”

It orients in time and space.

Begun at the instigation of Dean Martin Prekop of the College of Fine Arts, the Cooper piece originally was conceived as “something in one of the conference rooms,” says the artist. But when Cooper met the University Center architect Michael Dennis and saw the rotunda with the Kirr Commons at its heart, the “central orienting space in the building,”

he saw the artwork as a way of orienting viewers in space and in time. And, as it turns out, in memories, too.

With a few major exceptions, the mural's west wall re-creates the view of campus and the city looking toward the west, showing the campus in the present and the future. The exception, the long-gone Forbes Field, former home of the Pittsburgh Pirates, still stands in Cooper's Oakland. The artist says, "I put it in because I dislike the building that's there [Pitt's Mervis Hall]; I hated drawing the site without Forbes Field; and it gave me the opportunity to show where I used to live" at 260 Bouquet St. Close enough to the ballpark that an occasional foul ball would land on his front porch.

The east wall shows campus around 1965. Cooper chose that time because he was a student then; it was just before Carnegie Tech became Carnegie Mellon in 1967; and he could show the 1960 Skibo "that an awful lot of alumni will remember" as well as the 30-year carnival site between Skibo and Forbes.

The north wall, which follows a roughly receding time line from left to right, begins with Pittsburgh today with Point State Park, Three Rivers Stadium on the North Shore and the glass castle of a PPG headquarters. It moves to Pittsburgh in 1946, the year Cooper was born, to the campus as it appeared from 1920 to 1940 with its clearly smoky atmosphere. Farther along the north wall is Pittsburgh, circa 1904-10, when Carnegie's 1900 intention of founding a technical school began to materialize.

Cooper tied his work into the architecture of the University Center rotunda. He expected it to be seen from different angles and different distances. For this reason, he used large scale elements in the work: Forbes Field, Cathedral of Learning, Gesling and Pitts stadiums; the Hill District; and the Mon River winding its way along the wall as it winds itself around the city. "The main thing was that there would be large graphic elements that could be understood from a distance," notes Cooper. He leans again the railing overlooking the Kitt commons to explain the architectural opportunities of the space.

"Unfortunately these are a problem – these drapes," he says of banners that have hung from the 40-plus foot ceiling since the building's opening ceremonies. The vaguely tartan-design sheets obstruct the carefully constructed views of the mural that Cooper planned, he feels. Some observers contend the banners make the space look like a '70s mall hung with apartment house laundry lines.

"This view," Cooper says of a bump in the Mon, "was designed to be framed between this column and that pier." The view across the 55-foot wide commons at the second level cuts the mural into understandable and wonderfully complete separate pieces of art, framed by the very structure of the building. "The artwork," says Cooper, "is background to the architecture as well as being an object on the wall."

Cooper felt lucky that "nobody shut down" his year-long art project, carried out with an assist from Jonathan R. Kline, a senior architecture student studying in Switzerland this year; artist John Trivelli (A '92) and Cooper's daughter Sarah, a photographer.

It became clear rather quickly that the mural would require additional lighting and a guardrail to protect it. Those items bumped the budget up and "peevied" the late Ed Schatz, senior vice president, who was overseeing the project. Cooper solved that glitch by inviting Schatz (E '43) to his studio in Greenfield. "He fell in love with the project right

then,” says Cooper. “He became its biggest booster and made sure that everything worked for it.”

It shows campus and beyond

Cooper “wanted the mural not only to be about the campus, but also about the city and the region.” Through 1980, he says, most Carnegie Mellon students came from the area. Often, they lived in the neighborhoods surrounding campus. He wanted alumni to be able to show each other, their children and grandchildren where they lived, the Pittsburgh of their time, places important to them as students, the campus then.

Because he knew viewers would mount the stairway of the rotunda and come at the mural at an angle, he planned for that. From Baroque painters, he borrowed “anamorphic perspective,” which muralists had to use in making huge paintings on curved surfaces, though Cooper worked on a flat surface. Whatever the trick the artist applied, Gesling Stadium viewed at an angle of less than 90 degrees stretches deep into the wall, partly due to the buildings flanking it and the roadways paralleling it. Move directly in front of the stadium, and it goes flat. Cooper likes to see it working both ways.

The artist used some of his characteristic Escher-style tippy houses in the foreground of the mural as well as rougher, more naïve interpretations. It’s difficult to look at the mural without being aware of the Pittsburgh hills. Often, Cooper is up 18th Street on the South Side (a personal favorite of his because of the way it snakes down the hillside); up on Robinson and Allequippa streets above Oakland; somewhere in the hills above Kennywood, looking down on the amusement park’s old swimming pool, the Racer roller coaster, the Edgar Thomson works in Braddock.

“When I draw on site in Pittsburgh,” Cooper explains, “because of the hilliness, your eye is drawn very naturally to look either down or up at an angle. When you’re doing a perspective drawing and looking up or down, the vertical starts to converge. The verticals start to splay. You might experience a little vertigo as you let the mural shift your eyes around its curves.

It tells stories

The mural is full of stories and history.

There’s that famous street car stopped at Forbes and Morewood. In the ‘60s, it seems, a fraternity brother distracted the driver by dropping a ton of pennies all over the streetcar floor as he paid his fare. The driver paused long enough for the pledges to move in with their tools and weld the streetcar to the tracks. Then they blew it, Cooper says. They were so pleased with the prank that they went back to their house (now Alumni House), laughing all the way but making it easy to track down the culprits.

Cooper put a beer truck beside the old ATO house at the same corner. He had pledged the fraternity but dropped out figuring, “I’m not going to survive if I drink like this.” An irony of time, the house, now occupied by Alpha Epsilon Pi, is dry.

There’s the old library, known as “The Hut,” near The Fence; there’s spring carnival on The Cut. There’s the last time the Carnegie Tech football team beat Pitt – 1938, also Sugar Bowl year for the Tartans. The tiny scoreboard records the glory of 20-10 for

posterity. Way over on the north wall are some crudely drawn little fellows, lined up on Ridge Avenue with their names penciled in over their heads: Andrew Carnegie, the late Pittsburgh Steeler owner Art Rooney, Uncle Bob Christie (a Cooper family friend), Pirate player Honus Wagner and owner Barney Dreyfuss.

Back on the east wall, there's South Side Hospital where Cooper had his cataracts removed, and the Rev. Harold Tinker, center fielder for the Pittsburgh Crawfords, a black baseball team. An abbreviated story penned on the wall recounts, "Rev. Tinker fell down stair week before I visited him," with an image of Tinker lying flat on his back. Troy West (A '58), one of Cooper's teachers at Tech, stands in a tepee-like house with flowers. There's the old Carnegie Inn, circa 1937, near Margaret Morrison.

At various points in the mural, people walk their dogs, have a beer on the porch, cram the church at St. Paul's Monastery above the South Side, read a newspaper on their front stoop. There's Central Catholic, Rodef Shalom, Mellon Institute, the never explained or retrieved U.S. Air Force B-25 plane that went down in the Mon near Homestead High Level Bridge in 1956. There's black smoke coming out of the Hamerschlag stack, a Marlboro ad in a building that allows no smoking, the now vanished Sylvan Theater behind the College of Fine Arts, the Bridge of Sighs at the Allegheny County Jail, the outline of Fort Pitt, Weinstein's in Squirrel Hill.

It's the story of Tech, the story of Carnegie Mellon. The story of Oakland. The story of Pittsburgh. It tells of yesterday, today and tomorrow. It makes the past present and assures that future generations will remember where it all began. It's the Cooper mural: wall-to-wall memories

How did he do that?

Doug Cooper began his mural off-site in his Greenfield studio. He used medium density fiberboard panels, about three-quarters of an inch thick. He sealed these to keep the acidic material in them from bleeding into the paper. Then he applied an acrylic gel medium glue and attached acid-free paper to the panels. Using vine charcoal, he then drew the mammoth mural, working on 24-foot-wide segments. He covered the finished work with four layers of acrylic varnish. After it had "cured," he applied four layers of an oil-based varnish. "It can be cleaned," says Cooper (A "70)." That varnish will eventually yellow. After it's reached an unacceptable level of discoloration, it can be removed with turpentine and replaced."

The University Center mural is not Cooper's first. Along with senior citizens at Vintage in Pittsburgh, he created a 120-foot mural, displayed at Carnegie Museum and now installed at the Sen. John Heinz Pittsburgh Regional History Center. A similar 96-foot cooperative mural, developed with elderly people at The Center in the Park in Philadelphia, hangs in that city's Justice Center. A 15-by-27 foot mural he made for the city of Frankfurt, Germany is displayed in the central food market, Die Kleinmarkthalle.

OBJECT = STAINLESS STEEL CAR

A STORY OF THE STAINLESS STEEL CARS

One crisp October Saturday in 1939, a garageman in Greenwich, Connecticut, was busily applying a coat of paint to the front fender of a depot wagon when a bright, metallic-colored car pulled into his shop. Its right door was mangle out of shape. "Can you fix this door for me?" asked the driver, and he hauled a sheet of steel from the back seat of the card.

Explaining that he had run into a telephone pole, the driver said the repair job would be an extraordinary one. "This car is made of stainless steel," he said. "You may find it quite unusual to work with." Thinking that steel is steel, and a door is a door, the garageman accepted the sheet of stainless and agreed to do the job.

Several months and another sheet of stainless later, the job was completed. When Mr. Ben Johnson, then New York district manager of Allegheny Ludlum, stopped in to pick up the stainless car, the repairman was all questions about stainless steel. He said, "I'm surprised that the telephone pole was able to hurt your door at all. If more cars were made of that stuff, I'd be out of business."

It is not surprising that the garageman in Greenwich was thunderstruck from his first meeting with stainless steel. Some three years earlier, in the spring of 1936, experienced auto workmen in Detroit had been equally amazed with the properties of this metal. When the decision had been made to build six cars with stainless steel bodies, both men and equipment had been affected. But tools were adjusted, and capable craftsmen adjusted themselves to the newly tried material.

The general public was to have as much trouble getting used to the stainless steel cars. In Chicago, another Allegheny Ludlum man was the talk of the town in his "stainless goldfish bowl." To Mr. Willard McFadden it was almost routine to be driving down the Outer Drive to the shouts of other motorists who wanted him to stop so they might examine the stainless car. Unable to pause in the heavy traffic, McFadden frequently signaled for the curious to follow him. Then he would drive to the end of the speedway, pull over to the side of the road, and deliver a short address on the benefits of stainless steel.

As a matter of fact, normal traffic conditions were unknown to drivers of the durable and sparkling 1936 auto for the car attracted onlookers every time it moved. Such questions as "What is it made of?" and "Where can I get one?" came thick and fast. One day a group of Allegheny Ludlum men, waiting at a traffic light at City Hall in Philadelphia, were held up for ten minutes by a mounted policeman while other cars streamed through the intersection. Finally the officer came over to their car as if he intended to give them a ticket, and asked, "Can I buy a model like this?"

The officer well might ask about buying a "model." The car's weather-proof finish of stainless hadn't changed since it left the manufacturer's assembly line.

As World War II approached, these dependable assets of stainless steel took on an added importance. For the shortage of strategic materials brought the value of durable goods to the attention of everyone. And the Allegheny Ludlum stainless steel cars became much more than a subject of curiosity. These cars represented something that could last the duration. To the persons who operated them, they were now a dependable necessity. In the company's New York office, three men shared the stainless car through most of the war years, adding more than 100,000 miles to the veteran vehicle's log. It was not unusual for one man to drive the car into New York City from his home in New Jersey, another to have it for the day on business up in Connecticut, and a third to take it home with him to Westchester County.

Out in Chicago, Allegheny Ludlum employees were so proud of their durable car they called an official conference to decide what signs and slogans might best be painted on it to tell the stainless steel story. On the car door they painted "On the road since 1936," and on the mounted spare wheel was the sign "This is Allegheny Metal (stainless steel)." Observers report that the indestructible stainless car led many scrap drive parades collecting less durable metals for the war effort.

Toward the end of the war, a rash of stories made the rounds in St. Louis that brought to mind the "Legend of Sleepy Hollow." It seems that residents of one outlying district regularly saw a glowing, ghostly car speeding over the darkened road late at night. Wiser parents, who used this eerie apparition to get their children to bed, could thank the driver of one of the 1936 stainless cars for this convenient persuader.

The constant use of the stainless steel cars during the war years had taken its toll by 1946. Although the stainless bodies of each of the six Allegheny Ludlum cars were still just as good as new, after ten years and an average of some 200,000 miles on the road, many other parts were beyond repair. Such items as the engine, shock absorbers, transmission and gears had undergone many times the wear that such parts normally experience. The deterioration of the non-stainless flooring boards of the car in Chicago nearly cost Mr. McFadden his life. While driving along Michigan Avenue, his foot went through the floor and he lost control of the car. Holding onto the steering wheel with one hand, and fighting to extricate himself with the other, McFadden rode the careening auto across the center divide and into the lanes of oncoming traffic. Luckily he was able to avoid a head-on collision and bring the stainless car to a stop without accident. But the damage had been done. To prevent possible accident, the 1936 car was retired.

In New York, the stainless steel car had not covered the whole Northeast without wear and tear. In 1946, a company representative, Mr. Vern Deskins, bought the car and had a major repair job done on it. With almost a quarter of a million miles recorded, the stainless car's brakes, clutch and springs were virtually useless. Since the body looked the same as it had when it left the Ford assemble line ten years before, Deskins realized he would have a unique and useful automobile if the internal parts could be replaced. Once the repairs were completed, the car saw considerable service in the New York area, and was driven to Pittsburgh in 1947.

Meanwhile, members of Allegheny Ludlum's Philadelphia office still watched the activity of their old car, as a mother watches her child's temperature. Although it had been sold in 1940, company employees regularly checked with the owner to see how the nostalgic old auto was holding up. In 1948, the stainless car was still in operation, although it had outdone four engines. The all stainless body was still going strong.

In Detroit it was the same story all over again. The 1936 car had really gone through the wars, used both as a vehicle for business and as a family bus. But again all was not well beneath the ageless stainless body. But before the old car could fall into disuse, an ardent antique car collector, Mr. F. D. Crawford of Thompson Products Inc. in Cleveland, arranged to buy it from the company. He then presented it to the Thompson Products Museum where it can be seen today.

While the whereabouts of the cars originally driven to Cleveland and St. Louis began to fade into obscurity shortly after World War II, life was beginning anew for two others. In Chicago, the stainless car had virtually been on the blocks for several years when a company salesman told MacFadden he knew of a man who wanted to buy the car. MacFadden was reluctant to get rid of the stainless relic, but when he learned something of the prospective buyer, his reluctance faded away. For his buyer, Dr. Jerome Vlk, happened to be a stainless fan. A prominent orthodontist in the Chicago area, Dr. Vlk had pioneered the use of stainless steel in the practice of straightening teeth, and he and his wife were competent craftsmen with the durable metal. The Allegheny Ludlum stainless steel car was passing in to knowing and loving hands.

The old car was now about to embark on some of the most interesting experiences of its long and colorful career. Almost typical of the keen interest shown in the car is a proposition that was made to Dr. Vlk several years ago. He was interrupted in his office by a visitor who said he wanted to give Dr. Vlk the opportunity to make some money on his stainless steel car. The visitor, a carnival operator from the far west, said he could make a "bundle" using the old car as an exhibit in his traveling show. "Charging the customers 25 cents a peek, I'll guarantee you half the take, or \$4,000 a year." The impresario related that he had made almost as much showing the Mercedes car that had belonged to Adolf Hitler. Vlk declined the offer.

This wasn't the only chance to capitalize on his stainless car that Dr. Vlk turned down. A restaurant owner from Wyoming offered him \$3,200 for the car so that he might exhibit it as "The only perpetual car in the world." Vlk thinks this was only a minor exaggeration.

If Dr. Vlk has been unwilling to capitalize on his stainless car, a fellow Chicagoan has not. This man has maneuvered any number of the uninitiated into wagering about the existence of, "a car with a body that won't wear out." Then he takes his quarry to Dr. Vlk's home, shows him the stainless car, and collects his wager.

On the basis of the mileage Dr. Vlk has put on the auto throughout the midwest, and the inquiries he has received about it, one is surprised that there are any uninitiated left. Hardly a day goes by that he doesn't receive a letter, telephone call, or merely a greeting asking, "Is your car really made of stainless steel?"

Dr. Vlk has encountered many people and many questions in the process of putting more than 100,000 miles on the stainless steel car. He says as soon as a questioner learns the car is made of stainless steel, he wants to buy it. Dr. Vlk is slowly taking his 1936 car off the road, not because it can't take the pace of modern traffic and speeds – on the contrary, its body is as sound as ever and its internal parts are in order – but he is afraid it might be damaged. Vlk appreciates the uniqueness of his stainless car, and intends that it will be maintained for future generations.

Allegheny Ludlum has also been interested in seeing that one of the stainless cars be kept for posterity. In searching for an available stainless car, one was discovered right in the company's back yard. In 1947, Gerald Richards, a painter at the company's Brackenridge plant, bought one of the 1936 Fords. This car was to travel farther afield than any of the six original stainless steel models. For Richards packed his family into the old car and toured from the Gulf of Mexico to the Canadian woods. Even in the far north, the stainless car was a celebrity. While driving along the Niagara River, Richards nearly drove over the Falls when he heard a loud cry from another car, "Hi Brackenridge!"

As was the case with the other stainless steel cars, a constant barrage of questions followed all its travels. While touring the South with his family, Richards parked his car outside of a restaurant in Knoxville, Tennessee. On returning to the car, they found about ten people climbing all over it. "What is it made of?", "When are you going to paint it?" came the outburst. The din hadn't subsided when the Richards family drove off.

Even in the locale of Brackenridge and New Kensington, the stainless steel car was a showpiece. At a shopping center, Mrs. Richards had more of a crowd problem in the parking lot than she did lining up at the cash register. On one occasion, she had a crowd problem of a different sort. While worming her way out of a parking lot, she somehow caught the fender of an income car. Not much had to be done to brush up the entangled part of the stainless car, but it was another story with the victim.

By 1954, the same old problem of a sturdy stainless body, but deteriorating insides had become a pressing one. Slowly but surely Richards began to keep his stainless steel car in the garage, taken out only to placate the curious. By now most of the interest came from the ranks of neighborhood teen-agers, friends of the Richards' children. They saw the prospects of a fine hot rod, one with a strong, safe body.

At this point, another Allegheny Ludlum employee, Mr. Ian Kiltie of the company's Detroit office, contacted Richards and bought the car. His interest was that of a classic car collector, but his purchase became of great interest to the company. The value of the stainless steel car, both as a historical item and as a metal monument was very much on the minds of Allegheny Ludlum officials. Here was a dramatic way not only to tell but to display the story of stainless steel on the road.

At the beginning of this automotive history, we said our story would be different, that it had not visible end. As each historic year passes, a new one begins, a pattern that is likely to be followed in the foreseeable future.

The 1936 Ford traveled more than four hundred thousand miles. While its stainless steel body has remained oblivious to weather, wear and corrosive elements, other less durable parts of the car have been replaced regularly. Its travels have worn out three engines. Now, its beauty still unimpaired, the 1936 Ford is sharing its mission of proving the durability and lasting beauty of stainless steel with a 1960 stainless steel Thunderbird.

The styling of the two cars is in direct contrast, but the quality of their stainless steel body finish, despite the many years age difference, is identical.

Peering into the future of these two cars, we can perhaps indulge in whimsy and predict that they will surpass in age the vehicle immortalized by Oliver Wendell Holmes in his poem, "The Deacon's Masterpiece."

Have you heard of the wonderful one-hoss shay,
That was built in such a logical way
It ran a hundred years to a day?

An excursion into a quarter century of a man's life is a significant and incident-filled journey. The same trip into the life of an automobile would normally bring one full cycle; from assembly line through operation to junk pile. We have a startlingly different story to tell.

Our story begins in the fall of 1935 when Allegheny Ludlum Steel Corporation and the Ford Motor Company agreed to build six cars with bodies made entirely of stainless steel. Our story is different because we can see no end.

The motive behind the building of the stainless steel cars was to provide the ultimate test for this metal which had proven so successful since its introduction into the automotive industry in 1930. Many questions as to the fabrication possibilities of stainless steel might also be answered in the production of these cars.

With these ideas in mind, Allegheny Ludlum asked the automobile company to furnish a bill of needed materials. These included everything from sheets of stainless steel to wood and metal screws. But problems lay ahead. Have you ever tried to whittle oak with a cake knife? Similar difficulties faced the auto company's craftsmen, because their tools were set up to handle carbon steel which is vastly different from stainless.

The first hurdle came in the stamping process where heavy presses shape the flat rolled steel. This die equipment had to undergo changes in order to form the sturdy stainless sheets. Another knotty problem was faced in the welding operation, but further tool adjustment and the best talent in the field finally surmounted each obstacle. After months of arduous and patient labor, the six stainless steel cars rolled from the Ford assembly line and were driven to the Allegheny Ludlum plant in Brackenridge, Pa. From there, company representatives drove them to district offices in New York, Philadelphia, Cleveland, Chicago, Detroit and St. Louis.

With the stainless cars now on the road, our story takes on the aspects of both a family tree and Ulysses' Odyssey. For each car traveled its own highway and had a way of entering a bank of fog only to reappear again in an unexpected place, or perhaps to drop permanently from sight. We hope that as the story of these unique cars is spread, new information will be brought to light, and added to the history we now present.

More than a quarter of a century has passed since stainless steel first made its appearance on the American automotive scene. Since then, while car life had doubled, stainless steel is being used more and more.

Before 1930, car owners often spent long hours shining their brightwork. Stainless steel brought a change. Stainless steel is permanently beautiful without polishing, long-lasting without refinishing.

Automobile designers and engineers sat up and took notice. In case after case, stainless steel was outperforming other metals.

Stainless steel trim and accessories proved corrosion resistant. The strength and durability of this shiny metal also helped to make it an outstanding sales asset. These qualities appealed to auto distributors and used car dealers who realized that cars with stainless steel parts had a higher trade-in value and a faster turnover on the used car market.

Today, stainless steel stands on the threshold of a bright future. In the stepped-up efforts of automotive research to build a better car for the American public, stainless steel is frequently the metal specified.

Only recently, Allegheny Ludlum Steel Corporation announced that fabricator companies had produced bumpers and mufflers made of stainless steel. These are the first applications of stainless for such purposes.

With new uses of this metal being developed almost daily, the producers of stainless steel look forward with confidence to the years ahead.

History Center in Home to Historic Stainless Steel Car

A rare 1936 stainless steel Deluxe Ford Sedan – one of only six made – has been donated to the Senator John Heinz Pittsburgh Regional History Center by Allegheny Ludlum, an Allegheny Teledyne company.

The historic car is made of stainless steel manufactured at the Allegheny Ludlum plant in Brackenridge, PA. The Original six cars were designed by Allegheny Ludlum and the Ford Motor Company to demonstrate the uses and durability of stainless steel. Of the six that rolled off the Detroit assembly line in 1936, only three exist today. The cars' stainless steel body long outlasted its non-stainless steel parts.

Richard P. Simmons, chairman, president and CEO of Allegheny Teledyne, said the car is “symbolic of the leadership the Pittsburgh area has provided in the metals industry for more than a century.”

“I am pleased that the car is a part of the history of this area captured for the public's enjoyment at the Senator John Heinz Pittsburgh Regional History Center,” Simmons continued.

The original stainless steel 1936 Deluxe Ford Sedans were never considered show cars and were dispatched to Allegheny Ludlum district offices for company representatives, usually salesmen, to drive for business. The distinctive cars attracted attention and gave salesman a chance to extol the virtues of the “Allegheny Metal.” Each of the original six cars logged at least 200,000 miles before “retiring” to private ownership in 1946. The company later produced two stainless steel thunderbirds in 1960 and three stainless steel Lincoln Continental Convertibles in 1967.

1936 DELUXE FORD SEDAN

Six stainless steel cars rolled off the Detroit assembly line in 1936. Allegheny Ludlum has two, and a third is displayed at the Crawford Auto Museum in Cleveland, Ohio. Never considered show cars, the Sedans each logged hundreds of thousands of miles demonstrating the durability of stainless steel. The stainless steel bodies have long outlasted the non-stainless steel parts.

OBEJCT = 1929 FIRE ENGINE

Details about Firehouses, Horses, Firemen

Instead of placing Ladder 19 in the new house, Combination Engine 68 was placed in service on August 23, 1898, replacing the ladder company. The need for a steam power fire engine was being felt because of the location of Highbridge and the steep hills. Horses could gallop for only about a half of a mile with heavy steamers and going up the hills was very hard and time consuming.

Engine 68 was moved into the firehouse, at 1080 Ogden Avenue on August 23, 1898. The new building had a single door for the exit of the apparatus. In the front was the housewatch and along each sidewall were three stalls for the horses. In the rear was a one-story building that housed the feed and straw for the horses. On the second floor was the officer's room and sleeping quarters, located in the front of the building. Also on this floor was a large open room for sitting or leisure time between alarms. Behind this was the firemen's bunkroom and bathroom. The third floor had lockers and another open room for sitting. This house was unique in New York City because of the English Tudor design and the only such firehouse to have this look.

The life of a fireman was a hard one, both physically and on one's personal life. A fireman spent 24 hours a day working; with three 24-hour leaves a month off. Plus two 12-hour leaves, which could not be added to the 24-hour leave. He could go home for meals each day for a total of three hours in any combination of three 1-hour breaks, 2, hour and half breaks or one 3-hour break. The sitting rooms in most of the firehouses had some type of library with books rotating between the different companies in the area. Also in the firehouses were gyms with dumbbells and parallel bars to build their personal strength.

The horses were kings in the fire department during this time. On a cold winter's night after fighting a fire for five or six hours the first thing a fireman would do once back at quarters is take care of the horses. They would be watered, rubbed down, dried down, and fed before any fireman would change his wet clothes. The horses had an ambulance many years before the firemen did. Old time firemen always said the horses could count the bells and knew which ones they responded on.

The first fire horses in Oklahoma City were purchased in 1891. Horses were a source of pride to the fire companies, and they became much more than just a beast of burden. Oklahoma City, in the early twentieth century, was the only city in the world that could present a precision drill maneuver to show how the horses were harnessed and unharnessed. The firemen spent hours in perfecting timing and skills.

The horses could distinguish the ring of the station's Fire Phone from the ring of the Local Phone. At night, with a man on watch, there were two telephones. One was the Fire Phone, and the other the Local Phone. If the Fire Phone rang, the horses would be on their hitch straps before the watchman could get to the phone.

The men worked twenty-four hours daily, with one day off each week. Their duties included cleaning the bedding and stalls of the fire horses. Another one of their duties involved sitting night watch from nine-thirty p.m. until six o'clock the following morning. The watchman packed the horses' feet with wet clay to keep the fetlocks from drying. At

ten o'clock the watchman gave the horses water and hay. He answered phones until six a.m. When a long ring sounded on the Fire Phone the men "bunked out" of their beds to slide the pole and hitch the horses. The horses were trained to come into their places for hitching at a good speed. Back on that hot August day when the famous Lee-Huckins Hotel burned down, Ross M. Brooks was skipper of the smoke-belching, nickel-bellied fire engine at No. 1 Station. He was the one who braced his heels, hung onto the lines, and by hook or by crook got the careening, fire-loving horses around the corners without knocking over lamp posts and innocent pedestrians. The alarm came in for a fire. The horses knew their cue. They stampeded from their stalls and got into place under their suspended harnesses. Down the poles slid the men. Somehow, something went wrong with Brooks' apparatus. As the horses got out to the street, he discovered he might just as well be holding a yard of spaghetti as the lines. They were not fastened. But the horses knew their business. They saw the people running, smelled the smoke, and picked their own course. The engine arrived at the fire, needless to say, through sheer sense of horse.

Street Hitch

The Street Hitch was a maneuver that consisted of placing the fire wagon in the street near the fire station and then taking the horses a block away. An alarm was sounded and the horses would come running down the street, each going to its proper place, ready to be hitched to the wagon. The men had to be fast to catch the horses with the collars, in order to avoid being knocked down. The harnesses were suspended on a rack. When the collar was latched around the horse's neck, the rack was pulled back up to the ceiling by cables and weight. When the weight was lifted, the rack was let down and the harness was re-hooked to the rack for storage when the horse was unhitched.

EARLY 20TH CENTURY PITTSBURGH FIRE ENGINE DISPLAYED

Pittsburgh, PA—A restored 1919 American LaFrance Fire Engine, which once doused fires on Pittsburgh's city streets, is now display in the Great Hall of the Senator John Heinz History Center.

The fire engine, dubbed "ALF" or "Alfie" by firefighters of the period, was originally purchased by the Pittsburgh Bureau of Fire in 1919, at the time when fire departments were switching from horse-drawn to motorized vehicles. It was called a combination fire engine because it could put out fires with water, or with chemicals when fighting fires where water could not be used, such as electrical fires. The engine was often used in urban areas where readily available and electrical fires were common.

Before 1910, most fire engines in Pittsburgh were pulled by horses. By 1927, only two horses remained in service, pulling the fuel wagons for Pittsburgh's motorized fire engine.

This vehicle is on a long-term loan from the Frederick C. Crawford Auto-Aviation Museum, Western Reserve Historical Society, Cleveland. The fire engine, which bears the insignia of Engine Co. No. 5, was completely restored by its previous owner, noted car and truck collector Irving Jensen, Jr., and donated to the Crawford Museum in 1981.

FIRE ENGINE 1919

There are hoses in the back and chemicals under driver's seat and behind.
The driver and siren man sat in front. The firemen stood in the back.

OBJECT = CONESTOGA WAGON

The name "Conestoga" has been applied to an early Indian group, to a valley, to a river, to a trail and road, to a manor, and to a breed of horses now extinct. All of these are identified with Lancaster County, and it was across her rich farmlands and on the pike connecting Lancaster town with Philadelphia that the massive four-wheeled wagon, drawn by four or six Conestoga horses, first appeared. For its construction, skilled workmen were available. About 1770, Lancaster alone numbered among its craftsmen five wheelwrights, thirteen blacksmiths, twenty joiners and seven turners.

Wagoners and taverns were inevitable complements, so it is not strange to find that the first reference to the name in print appeared in the *Pennsylvania Gazette*, February 26, 1750, where mention is made of a tavern on Market Street between Fourth and Fifth, named the "Conestoga Wagon." At the end of the Conestoga Road, later the Lancaster Road, the wagoner could feed and rub down his horses, fortify himself with good food and ale, and swap yarns before stretching out for a night's rest on the floor of Christian Martin's excellent tavern, "The Sign of the Conestoga Wagon." Driving a six-horse team pulling a load of four to six tons over 63 miles of narrow, rutted road demanded toughness and stamina from driver, team, and wagon.

Aside from the use of a saw and a turning lathe, everything about the Conestoga wagon was homemade with hand tools. Its graceful, boat-shaped bed was usually fashioned out of white oak for the frame and poplar for the boards. Flooring and side boards were a half inch or five-eighths of an inch thick; if the wagon was to be used for carrying ore at the iron furnace, the boards would be cut thicker. There was little uniformity in its dimensions, but the wagon bed measured approximately sixteen feet in length, four feet in width, and the same in depth, with a sag toward the center. This last feature took the weight of the load off the end gates if the cargo shifted as the wagon made its way up and down hilly country. The end gates were held in position by a chain and staple that allowed the gate to be dropped for loading and unloading. Many parts of the wagon bed were braced with iron, and the handmade rivets secured the boards to the frame.

Arching over the wagon bed was a series of soaring wooden hoops securely stapled to the side boards. Depending upon the size of the wagon, these might number from six to thirteen, and over them was stretched the familiar white top of homespun or canvas. Roped to the side boards and drawn taut over the projecting end bows, the canopy stretched twenty-four feet or more, giving the impression of a great sheltering poke bonnet.

The test of a good wagon was in its axles and hubs, and in their construction the wheelwright was most exacting. Axles and bolsters were made out of tough hickory wood and the hubs from black or sour gum, a fibrous wood with high splitting resistance. The rough roads traveled by the wagons made it essential that axles, hubs, wheel spokes and felloes be sturdily built. For getting out of miry places and crossing streams the iron tire rim had to have a broad surface. Experience proved a four-inch rim most satisfactory, but widths varied from two to ten inches. The wheelwright had to properly shape the axle and dish the wheels to stand the strain of heavy loads and absorb the shock of rough roads. Dishing involved the precise cutting of mortises in both the hub and inside of the felloes so that the spokes would incline outward from the hub at precisely the correct angle.

Iron tires were usually made of two pieces of iron a half inch thick, bent to the exact size of the wheel and welded at both joints. Fitting the iron rim over the wooden wheel was quite a ceremony, and a blacksmith's job that called for dexterity and an exact heat judgment. A fire was built around the iron rim and when thought to be sufficiently hot it was lifted off by means of tongs, placed around the wooden wheel and hammered into place. Cold water was then poured over the hot iron to shrink it to a tight fit. If the iron was too hot it might burn the wheel, if not hot enough there was danger of a poor fit, and if cooled too suddenly the rim would split. The front wheels of the wagon as a freighter stood about 3 feet 6 inches high, and the rear wheels might vary from 4 feet to 4 feet 6 inches.

Numerous items from the smith's shop went into the wagon's construction. Stay chains made of hand-forged links of infinite variety held end gates in place, the tool box on the left side of the wagon just back of the lazy board was ornately ironed and hinged. An axe rested in a decorated socket, and the wagon tongue and feed box were both strengthened and beautified by fancy ironwork. Brake shafts, linchpins, hooks, staples, and latches were other metal accoutrements.

Like the cautious motorist of today the wagoner would not venture a trip without his wagon jack. The worn condition of those that remain witnesses to their necessary and frequent use. For many years the blacksmith who "ironed" the wagon also made the jack, and, as it served in a fashion to identify the owner of the wagon, his initials and date of making of the wagon were cut into the pillar of the jack. Loads of four tons and more had to be raised by the jack so it had to be solidly built. As a piece of vital, standard equipment its use was not limited to surmounting the customary hazards of the road but it was used regularly to remove the wheels for greasing axles and bearing parts. Ordinarily, it was slung on the rear axle tree alongside the feed and water buckets and the "teer lodel" or tar bucket that contained the pine tar lubricant.

The Conestoga wagoner, unlike the driver of the later prairie schooner, did not ride inside his wagon but either walked beside his team, rode the wheel horse – the rearmost horse on the left – or perched precariously on the lazy board. This last was a stout oak board that pulled out from beneath the wagon bed immediately in front of the left rear wheel. From this position the driver had a good view of the road ahead and from it he or his assistant operated the brake. The lone wagoner often picked up a hitchhiker who would work the clumsy brake for him when the going was rough. Driving from the left side of the Conestoga, when all other vehicles were driven from the right, is believed to have established the present practice of American vehicles being driven from the left.

In its final coat of paint – invariably it has a Prussian-blue body and bright red running gear – and its white cover, what did the wagon cost? In a day when the dollar commanded far more labor and material, it took four men, the wheelwright and blacksmith and their helpers, two months of continuous work to complete the wagon and its sundry articles of equipment. A completed wagon, approximately twenty-six feet long, eleven feet high, weighing between 3,000 and 3,500 pounds, and capable of holding five hogsheds or thirty barrels of flour, cost about \$250.

By contrast, the six powerful Conestoga horses that pulled the wagon were valued in the vicinity of a thousand or twelve hundred dollars. The lineage of the Conestoga horse is not known, and it has now passed from view. One tradition said that William Penn sent

three Flemish stallions into the Conestoga Valley where they were bred with Virginia mares. Another supposition is that since most of the earlier ones were black, they were offspring of the black cart horses common in England, whose ancestors had been those great black horses of France that carried William and his armor-clad Normans to conquests at Hastings. The bays and dappled grays of more recent time were probably the results of mixed breeding with such strains as the Suffolk Punch and Chester Ball.

In temperament the Conestoga was generally docile and steady. He stood over sixteen hands high, well muscled, weighed about 1800 pounds, and his longish stride covered twelve to fourteen miles a day. The wagoner placed his heaviest and best horses nearest the wagon for they had the job of turning and backing. Farmers and wagoners took pride in the animals, kept them well groomed and fed, and went to no little expense in fitting them out with good harness and fancy trimmings. Bridles were adorned with elaborate headbands, rosettes or pompoms, and forelocks and head stalls were gaily trimmed with ribbon and loops of colored material.

A chorus of vari-toned bells heralded the rumbling approach of the Conestoga, for each horse sported a set of small musical bells made of brass or iron mounted on a wooden or metal arched frame. Each frame customarily carried four bells, those on the lead horses being the smallest, those on the swing horses somewhat larger, and those on the wheel horses the largest. Without doubt the Conestoga wagon lacked the swift grace of Santa Claus's sleigh, but its merry bells rang out ample notice of its approach with like promise of good things in its capacious interior. The cheery, reassuring statement "I'll be there with bells on" seems to have originated in wagoning days. In some areas it was the custom for the unlucky wagoner who had to have help getting his wagon out of the mud or pulled up a steep grade to surrender his bells to the good Samaritan who aided him. For a team to arrive without its bells carried the stigma of inferiority – no really first-class team would ever lack the accompaniment of jingling bells to the clatter of its hoofs.

Wagoning was a full-time occupation engaged in by professional teamsters, the "regulars," and by "sharpshooters," farmers who went into it on a seasonal or casual basis when the work of the farm permitted, or, when the earnings looked good. Many of them were thrifty and industrious Pennsylvania Germans. Much like their modern counterpart, the overland truck driver, the "regulars," were a tough, hard-bitten, resourceful class. They were seasoned by weather and experience, ready to fight for a load, and not hesitant about forcing another team off the road if right of way was disputed. They particularly abhorred those "sharps" who "horned in" when wagons were in strong demand to move goods out of overflowing commission houses, or when a major break in the canal meant full loads at high rates for the wagoners. He might conceal brass knuckles or a blackjack in his rough homespun jacket, and his pockets would bulge with those cheap cigars called stogies – presumably a corruption of Conestoga – which he smoked to keep the dust out of his throat. His pants were of homespun and sometimes of leather, and a flat wide-brimmed hat gave some protection from sun and rain. Shaving was haphazard so it was more convenient and a sign of manhood to wear a beard.

On warm summer nights he would stop where dusk overtook him. The team would be fed, watered and hobbled before he prepared his own meal, and if a number of wagons were in caravan, crude jokes and stories would be swapped across the flames as supper cooked. Winter nights he made for a tavern. Here he drove his wagon on planks to

keep the wheels from freezing to the ground, saw that his horses were cared for, and then made for the snug warmth of the barroom where food and drink awaited.

But while the wagoners dozed away on the lazy board, letting the teams find their way on now-familiar roads, other men, clever mechanics and ingenious instrument makers, were converting the novelty of steam power into a new practical source of locomotion. The push of progress, the rival before which team and wagon had to yield right of way, was the steam locomotive. Wagoners and canallers joined in petitioning against it, in cajoling customers to stick to the old and tried methods, and in destroying railroad property. The page was slow in its turning, resistance was considerable, but inventiveness and ingenuity were speeding up the movements of men and their material goods. Their livelihoods gone, horses and wagons now doing the humdrum chores of the farm, the glory and romance of the road becoming a fading memory, the inevitability of change is reflected in the wagoners' lament:

Now all ye jolly wagoners who have got good wives
Go home to your farms, and there spend your lives.
When your corn is all cribbed, and your small grain is sowed,
You'll have nothing to do but curse the railroad.

But the wagon was not to be wholly consigned to such a mundane end. Outmoded by the railways in the eastern states, it moved outward with each new line of frontier as the fingers of settlement rippled westward. By those generations of Americans who sought a new life in the new west, its uses were multiplied to include domicile, fortress and boat, as well as conveyance. Most fittingly, it stands as the symbol of America pushing its boundaries outward from ocean unto ocean.

Excerpt from *The Conestoga Wagon*, Norman B. Wilkinson, Pennsylvania Historical and Museum Commission, Harrisburg, 1974.

FUNCTION OF THE CONESTOGA WAGON

Conestoga wagons were the primary means of transporting freight during the 18th and early 19th centuries. These vehicles could carry loads of 4 to 6 tons and were drawn by teams of 6 horses or oxen. The drivers usually walked along side the team, but would at times ride the rear most horse on the left known as the wheelhorse.

The widespread use of Conestoga wagons declined after the middle of the 19th century when railroads took over as the main source of freight transportation. The Conestoga still remained in use, however, serving as a farm vehicle until well after the turn of the century.

DESIGN OF THE CONESTOGA WAGON

The Conestoga wagon was designed to transport heavy loads over mountainous terrain. The body of the wagon was usually painted blue and was built in a boat shape. The purpose of this design was to center the load and prevent it from shifting or rolling while being hauled over steep grades.

Besides the blue painted body, the Conestoga wagon had other decorative features as well. The wagon featured red painted bows that were topped off by a white canvas cover. The ironwork was decorative also, as all of the toolbox lids differed in design. These unique items provided an opportunity for the blacksmith to show off his artistic and creative abilities.

ORIGINS OF THE CONESTOGA WAGON

The Conestoga wagon originated in southeastern Pennsylvania during the early part of the 18th century. The vehicle was named after the Conestoga River Valley in Lancaster County where the wagons were first produced.

OBJECT = HEINZ HITCH

Description

Reconstruction of a Studebaker Co. heavy freight wagon, painted in H.J. Heinz Company liver: very tall and deep cargo box, exterior painted bright red; running gear painted white, with black & red decorative striping; 40" diameter front wheels, with swivel-mount axle and doubletree hitch; 55" rear wheels, and leaf spring hung axle; dummy "brake" blocks (actual brake is hydraulic automotive) style disc-brakes system; body grab rails & fittings chrome plated; bed is topped by an assemblage of "dummy" crates, labeled to resemble "old-time" Heinz products, concealing a storage compartment below, accessed through the tailgate, and lined with indoor-outdoor carpeting; driver's platform features leather-covered seat pad, footboard assembly with moderating brake pedal; 2 coach lamps wired for battery operation.

Provenance

Reconstruction based on a 19th century Studebaker wagon, discovered in Central Pa. by John Dryer, c. 1979; the "Heinz Hitch" program began in 1983; it appears that little, if any, of the vehicle is original, save perhaps some metalwork; the present paint job appears to date to the late 1990's; the wagon was drawn by a team of up to 8 horses.

Heinz Hitch, late 19th century, renovated 1978

The Heinz Hitch operated from 1986 – 2006 traveling hundreds of thousands of miles and delighting crowds at parades, country fairs, and festivals across North America. The late 19th century wagon, built in South Bend, Indiana by Studebaker, was discovered in a storage shed in central Pennsylvania in 1978. Neglected for decades, it has a tree growing through the floorboards. After meticulous reconstruction and painting, the wagon recalls the beautifully decorated Heinz delivery trucks from the early 20th century.

The Hitch was the inspiration of John Dryer, retired general manager of research and quality assurance. Dryer combined his years of services to Heinz with his love of horses to bring the Heinz Hitch to life. Eight stunning black Percherons, the horse favored by H.J. Heinz to pull the original delivery wagons, powered this hitch. Dryer traveled more than 100 days a year driving the Hitch in national events such as the Macy's Thanksgiving Day Parade, the Fiesta Bowl Parade, and Major League Baseball's Opening Day Parade.

Gift of the H.J. Heinz Company