The year was the first time Chrysler marketed the Barracuda as its own brand, separated from the Valiant family. The Sports Barracuda depicted here has a sleek fastback line with a relatively small glass rear window. Backhouse used his initials and the model year as the license plate number.
Drawings of the Great American Automobile

Shepparton Art Museum

7 March – 17 May 2015

Education Resource Kit
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Dream Machines: Drawings of the Great American Automobile at sam.

This education resource provides an overview of the period that saw the development of automotive design in America in the post war period. As a key driver of consumption and production of car manufacture, auto or car styling led to an extraordinary and rapid development of the automotive industry in the 1950's and 60's. Key aspects of this industry supported artistic skills, innovative design and career pathways for auto designers or car stylists. A selection of hand-drawn artworks and short biographies of influential designers included in each section of this resource, provide further background to the development of design schools and the studio system that supported American car design from the 1930's to the 1970s. All artworks presented in the exhibition Dream Machines: Drawings of the Great American Automobile are drawn from the collection of Jean S. and Frederic A. Sharf, now housed at the Museum of Fine Arts, Boston.

The exhibition at Shepparton Art Museum consists of over 100 drawings that use a range of media including colour, metallic, white and graphite pencil, gouache, ink, watercolour, magic marker and spray paint. Different kinds of drawings include student exercises, sketches and proposals for concept cars by key designers, some of which became one off 'show cars'. Presentation artwork feature production car drawings that were also the result of extensive and skilful rendering by experienced auto designers. A number of key drawings feature settings completed by advertising studio illustrators to complement car drawings. Although auto design was regarded as a highly technical and specialised skill, it was the advertising studio artists who were credited for the finished artwork.

In accordance with categories supplied by the Museum of Fine Arts, Boston, car drawings presented in this resource are listed under the following headings: Student Art, Concept Drawings, Exterior Design - Studio Art, Exterior Design - Presentation Art, Interior Design and Commercial Vehicles. It does not include examples of Advertising Art.

Suggested activities in this resource are starting points for further development and may link to a number of subject areas various year levels and relevant Domains.

In compiling this information Shepparton Art Museum would like to acknowledge the assistance and support of the Museum of Fine Arts, Boston.

Prepared by Rhonda Chrisanthou, Visual Arts Educator
birth of the car styling industry.

“Before 1930, automobile design was determined by engineers and reliant on the dictum of form follows function. With an increasingly competitive market, car companies began to place a greater emphasis on aesthetics as a point of difference to promote their brand. Initially designers were employed to select the colour palette of both the exterior and interior of the vehicles but by the end of the decade, specialist designers directed every detail of the entire artistic vision.”

Anna Briers, Senior Curator, Shepparton Art Museum

General Motors

Independent manufacturer Harley J. Earl is credited with establishing the field of automobile design. Initially, he began to custom design car bodies in 1920’s and was soon designing cars for Hollywood film stars. He was subsequently employed by Alfred Sloan at General Motors.

In 1927 Sloan set up a new department to ‘address styling and colour in all the company’s products’. He hired Earl to form the new department, known as the Art and Colour Section. It employed a ‘small team’ of fifty men that included artists, engineers, sculptors and administrators. The emphasis was on colour schemes for car interiors and exteriors.

At General Motors, Earl recognised that cars needed a ‘visual identity’ characteristic of each brand. Importantly, the 1930’s saw the studio system established to support each General Motors car brand – Buick, Cadillac, Chevrolet, Oldsmobile and Pontiac. In 1937 the Art and Colour Section became General Motors Styling Section and in recognition of the importance of ‘styling’ to sell cars Earl was made vice president of General Motors in 1940.

Student Artwork
“[the above] drawing was included in the portfolio that convinced General Motors to hire him in the spring of 1963. Perhaps it is no accident that the starkly modern building in the background evokes the General Motors Technical Centre in Warren, Michigan (designed by Eero Saarinen) which had been completed in 1955. Molzon would spend seven years working in that building before moving to Chrysler in 1970, and ultimately to freelance work in 1974.”

William R. Molzon

**Short biography** - William Molzon became interested in auto design while still in high school; entered Fisher Body Craftsman’s Guild competition, where his model car design was voted first in the State of Ohio for 1957; a different model car design was voted 2nd nationwide for 1959. He graduated from the General Motors Institute in 1960 with a degree in Mechanical Engineering and then went to the Art Centre School in Los Angeles, where he graduated in 1963 with a Bachelor of Professional Arts degree.

He worked at General Motors from 1963 to 1970, primarily in the Chevrolet Studio; then moved to Chrysler, where he worked from 1970 to 1973. Working for a brief period at Rohr Industries, on designs for mass transit vehicles, he then joined Calty Design Research, Inc., the American design and research firm established by Toyota in 1973. Molzon worked there from 1974 to 1978 and then went out on his own as a freelance industrial designer.

Ford

Although the Ford company was a key manufacturer in producing affordable passenger and commercial vehicles, Henry Ford was reluctant to offer customers choices based on styling. The ubiquitous Model T Ford was available in, ‘any colour as long as it was black’. However, in response to innovations at General Motors, Model A was developed in 1927 with colour options.

In 1932, Edsel Ford, Henry’s son took steps to develop a design studio under Eugene T. “Bob” Gregorie. They catered to all brands and types of Ford and Lincoln cars, trucks and farm tractors.

Commercial Vehicles

George Barbasz
Styling Proposal Triple View: Ford Model F-1 Truck, 1950t
coloured pencil and gouache on brown paper, mounted on cardboard
43.2 x 58.4 cm
Jean S. and Frederic A. Sharf Collection
Image © 2015 Museum of Fine Arts, Boston
In the following artwork…’Barbaz has depicted a side view of a vehicle with chassis of an F-1 and body of a van. The driver would be positioned over the front wheels, with a panoramic windshield, exactly as depicted in the other two views.

Barbaz spent his entire career at Ford, retiring in 1981. He moved frequently among many exterior design studios, and never actually worked on a production car. This styling proposal was created in an Advanced Truck Studio. It was too far ahead of its time to be manufactured.’

George Barbasz

Short biography - George Barbasz grew up in Dearborn, Michigan. After graduation from high school he entered the U.S. Army; he fought at the famous battle of Anzio, where he was wounded twice. In 1946 he returned to Detroit and enrolled at Meinzinger’s Art School. In that year Meinzinger added a course in automotive design to the curriculum. After completing his courses, Barbaz was hired by Ford in January 1948.

He spent his entire career at Ford, retiring in 1981. He moved frequently among many exterior design studios, and never actually worked on a production car.

Chrysler

Chrysler was also a leading car manufacturer in the pre-war period. They established a design studio in 1930's and called it the Art and Colour Section but it operated as a branch of the engineering department. However, by the 1940’s ‘styling’ was an essential component of automotive marketing or ‘creating sales’.

Exterior Design - Studio Art

‘Ackerman was working on re-design of the front end of the 1974 Dodge Coronet. This drawing and an accompanying drawing of a blue sedan show the importance which all auto manufacturers attached to the front end or “face” of their designs. The full-width grill enclosed quad headlights in the final production version, and the grill was an egg-crate design with rectangular openings; the Dodge name in block letters was spaced across the centre of the hood.’
Robert S. Ackerman (1935 - present)

**Short biography** - Robert S. Ackerman attended the Technical High School in his home town of Waterbury, CT and then worked as a draftsman for a local manufacturer of refrigerators.

He enrolled at the Art Centre School in Los Angeles in 1956 but had to drop out in the following year from lack of funds. He spent the next few years at North American Aviation (now Rockwell), working on the X-15 project. In 1960 he went to work for General Motors under Bill Porter, as a tech stylist. He was an experienced, successful designer employed at General Motors when in 1964 he decided to enter a competition sponsored by Motor Trend Magazine. The four winners, including Ackerman, were each given full scholarships to the Art Centre School.

After two years at the Art Centre School he returned to General Motors and worked both at the Oldsmobile Studio under Jerry Hirschberg and Chevrolet Studio under Dave Hollis. He also worked on a diorama for the 1964 General Motors Pavilion at the NYC World’s Fair. In 1969 he joined Chrysler, where he remained until his retirement in 1996.

**suggested activities.**

The element of tone, shadows and white highlights are used extensively in many car drawings to create 3D form.

**Q1** Find, describe or sketch a car drawing that uses tonal contrasts to create depth and form.
the studio system.

In 1945, as World War II was coming to an end, American auto manufacturers tentatively resumed production of passenger cars. In the immediate postwar period there was enormous pent-up demand, combined with a feeling of economic optimism. Fuelling the “American Dream” new suburban lifestyles gave rise to huge growth in house and car ownership as well as a highly competitive field in auto styling, leading car manufacturers emphasised car styling and branding in design and studio production. Car companies included Ford, Chrysler, General Motors, the American Motors Corporation and Studebaker.

Highly protected and secretive auto design in the years prior to the computer, was the work of teams of artists who reported each day to studios located adjacent to the production facilities of each car manufacturer. Their job was simply to draw—entire cars, parts of cars, and cars which did not yet exist. These artists emerged from an organized training system which was primarily run by well-known industrial art schools. The foremost of those that specialized in auto design at that time were Pratt Institute in Brooklyn, New York and the Art Centre School in Los Angeles, California. Both institutions received support from the auto manufacturers. As car manufacture lagged well behind demand for increasingly stylish and innovative car models, new designers were trained to develop new models that saw unprecedented sales during 1950’s and 1960’s.

Although established in the 1930’s the studio system was essential to the future modelling and refinement of automobile design and manufacture in the postwar period. By mid 1950’s, General Motors employed 1100 people in their styling division. Stylists worked closely with a team of engineers and modellers. Teams were put together based upon a hierarchy of designers beginning with chief designer, assistant chief designer, senior designers and junior designers. Each studio included tech specialists, draughtsmen, studio engineers and several modellers who produced 3D clay renderings.

Management set the theme to which each designer produced up to 20 sketches a day. Finished renderings took one or two days. All work was displayed periodically for perusal by management who looked for promising work. Selected sketches underwent further development over weeks, sometimes months by the design team.

Presentation Art

George S. Lawson
Design Proposal for American Motors Corporation: CUDA + 44, c. 1959-60
coloured pencil and gouache on black paper
45.7 x 71.1 cm
Jean S. and Frederic A. Sharf Collection
Image © 2015 Museum of Fine Arts, Boston

Image 50x50 to 426x300
This drawing demonstrates both the fluidity and unpredictability of design ideas. When Lawson left General Motors to take a job with American Motors Corporation in 1959, he might have brought with him the notion of winglike front-end elements. Such elements were already in production on General Motors vehicles by then, but they would be obsolete by the time Lawson left AMC in 1962.

George S. Lawson

Short biography - George Lawson was an experienced auto designer who had worked at General Motors in the 1930s and moved to Briggs Manufacturing Company in 1940-41. When war broke out he returned to General Motors, working on training aids (educational material) for the U.S. Treasury department, as well as instructional manuals for various war material. He continued to sketch car designs in his spare time.

Early in 1946 he was working for Preston Tucker of Tucker Corporation, designing a rear-engine car with instruments located on the steering wheel, to be known as the Tucker Torpedo. However the relationship did not last through the year.

Lawson left General Motors in 1959 to take a job with American Motors Corporation, and left AMC in 1962 to become a freelance designer. Medical problems forced him to retire in 1969.

Suggested activities.

In the mid 1950’s space inventions and aerodynamics continued dominate car styling. With design studios for each brand of car General Motors were leaders in the field of automotive styling. Brands included Oldsmobile, Buick, Cadillac, Chevrolet and Pontiac.

Several car drawings in the Dream Machines exhibition are completed by illustrators who worked for advertising agencies. They feature exotic settings or background scenes where people may like to live or visit.

Q1 Find examples of car styling from this period that are directly influenced by jet aeroplane styling or space travel.
   Clues – rocket fins, jet bubble tops, push buttons consoles, transmitter devices.

Q2 Find and compare design features or styling in both early and late artworks by a key auto designer who worked at General Motors.

Q3 Create a dream setting or scene for a car drawing that would appeal to yourself or someone who is a prospective car owner.
**Design Schools and Competitions.**

Beginning in the pre-war period auto designers were recruited through car competitions, guilds and scholarships that fostered very high participation and demand for futuristic styled cars: sedans, convertibles, station wagons, and racing cars. Key organisations that fostered keen competition and innovation in car design were:

**The Fisher Body Craftsman’s Guild** was established in 1930 by the Fisher Body Division of General Motors, to encourage teenage boys to become designers. A national design competition, with attractive cash prizes, was run every year (except the war years) until it was discontinued in 1968. Each contestant designed and built a model car, which was sent to Detroit to be judged.

**The Art Centre School** founded in 1930 in Los Angeles, started as an industrial design school. In the post war period it also offered new courses in advertising, illustration, photography and a transportation course. The emphasis was on fostering artistic and advanced design skills to produce design concepts for folio work. Students were selected on the basis of their portfolios, from design competition drawings. During 1950’s high levels of enrolment reached 600 students with 75% being male. Teaching staff were instructors drawn from specialist areas. Through scholarship programs Ford, Chrysler and General Motors maintained a close relationship with the Art Centre and suggested possible student projects. This saw the development of elaborate colour renderings that featured ‘dream’ cars in exotic settings and it created career pathways for prospective students. In 1976, it moved to a new campus in Pasadena and changed its name to Art Centre College for Design.

**The Pratt Institute**, an industrial design school in Brooklyn New York was an important source of innovative car design during the pre and post war period. General Motors scholarships also supported automotive design courses which saw influential men like Richard Arbib, Tucker Madawick and later Homer La Gassey and Elia Russinoff become leaders in the field of automotive design.

**The Detroit Institute of Automotive Styling (DIAS)** was established by Harley Earl in 1938 to train designers. In 1945, General Motors transferred this business to the newly-created Harley Earl Corporation (HEC), which hired Richard Arbib to manage the business. Arbib ran DIAS for three years, both as a place for students to take classes and to offer a correspondence course.
Student Art

In this drawing, Brochstein (who would spend his entire career at General Motors) expressed the modern penchant for cars with a clear bubble top. Few such cars were actually produced.

Jerry Borchstein

Short biography - Jerry Brochstein was born in Houston, Texas. He attended the Art Centre School in Los Angeles, from 1955 to 1959, and then went to work for General Motors.

He started at Cadillac, moved to Buick and Chevrolet divisions. In the early 1970s, he transferred to the Advanced Studio, where he ultimately became Chief. Before he retired in 2000 he was working in General Motors Truck Studio.
George Anderson

Short biography - George Anderson attended high school in Detroit, graduating in 1956. He was interested in auto design, and built a model car for the Fisher Body Craftsman’s Guild competition in 1955 and received Michigan Honourable Mention. He worked for a year in Detroit art studios to earn enough money to enrol at the Art Centre School in Los Angeles in 1957. He earned his way there by working for a funeral home.

He was hired by General Motors in 1960 after graduation from the Art Centre School, Anderson was assigned to a Special Studio at General Motors in 1963 and 1964 where he worked on General Motors vehicles to be displayed at the 1964 New York World’s Fair. Ultimately, he decided to work entirely on interior design and the many details associated with making a car comfortable for a consumer. He retired from General Motors in April 2003.

suggested activities.

Many young artists were trained in art schools linked to the automotive industry or industrial design courses.

Q1 Imagine that you are a young designer wanting to impress the chief designer at an advanced car studio. Create a series of grey lead sketches that would impress or be of interest.

Q2 Give your sketches to other students to make suggestions or to develop further. Select ideas that you would like to use to complete your final drawing in colour.
popular fiction: cartoons, comics, war and science fiction.

Reflecting the theme of the ‘World of Tomorrow’, the World Fair in New York in 1939, featured futuristic images of advanced cars, planes, helicopters, rocket ships and even missiles. Between 1941-45 futuristic design graphics were further disseminated in American popular culture, as car styling responded to and developed alongside popular fiction. Comic books, in particular, doubled in sales from 10 to 20 million per month. Although passenger auto manufacturing ceased during the war years, car designers worked in designing military hardware or in other manufacturing industries. When design studios re-opened, aeronautics and military design featuring rockets, bombs, and twin-tail airplanes were found in both comic and car production styling.

In 1945, Carl Renner an experienced cartoon animator at Walt Disney was hired to work in the orientation studio alongside young designers such as Peter Wozena. The 1948 Cadillac, featuring large fins were based upon the twin tail of the Lockheed P-38 Lightning aeroplane. It was one of the first new production models based on post war design.

Concept car drawings by Richard Arbib, Homer La Gassey, Elia Russinoff and Carl Renner were influenced by futuristic design elements found in comics, cartoons and pulp fiction.

‘Many of the production features associated with cars of the 1950s began on the drawing boards of designers of concept cars. The inspiration for these images came from the rockets, bombs, and planes which had dominated popular culture in the 1940s. Bomb-like forms were introduced as bumpers in the early 1950s. Rocket ships inspired some of the most popular cars in the General Motors Motorama show.

New inventions which had proved their usefulness during the war, such as helicopters, inspired designers to imagine peacetime applications. Emerging technologies prompted designers to imagine a car which used these innovations. For example, in 1956 designers at Ford began work on a car which they called “Gyron,” in which a gyroscope kept the car upright; one such car was finally built in response to the popularity of General Motors’s “Firebird” show cars, and was exhibited in the spring of 1961.’

MFA Boston
Elia “Russ” Russinoff

Short biography - Elia Russinoff was born in Detroit. His father worked as a dye designer for General Motors. Russinoff entered the Fisher Body Craftsman’s Guild competition in the fall of 1946, with a mediocre submission; his second for the 1948 contest was better, and in 1949 he submitted a winning entry which got him a $4,000 scholarship. He used this to attend the Pratt Institute in Brooklyn, New York.

While a student at Pratt he interned one summer at General Motors, and upon graduation in 1954 he was hired as a General Motors designer. He took night courses at Pratt taught by Richard Arbib and was deeply influenced by him.

He remained at General Motors for his entire career. As was customary at General Motors, Russinoff was rotated among various studios. He did not like production studio work, preferring the Advanced Studios where he could use his imagination. From 1968 until his retirement in 1995, he primarily worked in General Motors’ Advanced Studios.

suggested activities.

Car styling was strongly influenced by cartoons and comics that were very popular in the 1940’s and 1950’s.

Q1 Can you find car drawings that look like they belong in a comic strip? Draw the car and create a comic strip to tell a story.

Q2 Find out who drew the car and explain how the design features are influenced by cartoons, war and science fiction.
advanced studio art.

American car manufacturers in the years after World War II attached enormous importance to the studios in which select designers worked only on concept cars, also known as “dream cars”. In developing design proposals or ‘concept drawings’ they were told to imagine designs and technical features which did not then exist. Many of these designs got no further than the artist’s rendering; others would be assigned to a larger team—including draftsmen, engineers, clay modellers—so that prototype cars could be built. In general, these prototypes or ‘show cars’ were not meant for production but rather for exhibition, to test the reactions of the public.

Concept Drawing

‘Drawings with precise dates were usually done in Advanced Studios, and in series. This was probably one of many drawings done by Drake to play with what exaggerated fins would look like. The flat roof line reflects General Motors thinking at the time. The sharply upturned fin also reflects concept proposals for the 1959 Cadillac Eldorado Brougham.’

Chrysler had introduced exaggerated swept-back fins in their 1957 models and General Motors needed to respond—without copying the Chrysler design. They ultimately did so in the 1959 Cadillacs. Cadillac also produced a show car in 1959, called XP-74 Cyclone. It had exaggerated fins, pushbutton interior controls, and a dashboard which looked like an aircraft instrument panel.’
In this drawing, dated May 5, 1959, Bill Porter has drawn a sleek sports car with a sculpted body and an unusual sliding door panel to facilitate entry into the car. He also created wrap-around front and rear windows; they almost completely envelop the car, suggesting the bubble top of a jet fighter plane.

In this and an accompanying drawing, Porter creates a variation of the design of the previous day. It includes a gull wing door for entry, and a much longer front end. Both drawings relate to the final designs of the General Motors sports cars. These popular production cars were both two-seaters, offered only as hardtops or convertibles.

Porter believed that these two drawings anticipated the appearance of the 1963 Chevrolet Corvette Sting Ray. In many cases, drawings done in the Advanced Studios would influence production designs many years later. It took time for the taste of the American public to catch up with the imagination of the auto stylists.

William L. “Bill” Porter

Short biography - Bill Porter had graduated from the University of Louisville with a degree in Fine Arts. When he decided that he wanted to pursue a career in auto design, Homer La Gassey at General Motors interviewed him and advised him to get a graduate degree at Pratt Institute in Brooklyn, NY.

Porter attended Pratt while working for a manufacturer of neon lighting. He spent two summers interning at General Motors, and was hired there in 1958 after completing his Masters degree in industrial design at Pratt.

By the mid-1960s Porter had risen to the position of Studio Chief of Pontiac, responsible ultimately for important cars introduced in the late 1960s such as the GTO and Firebird.
suggested activities.

Some car drawings show classic cars such as an Oldsmobile or Cadillac. The design features are in many ways restrained, well-proportioned, solid and fashionable. Other car drawings show cars that are drawn in a highly expressive manner. They could be described exaggerated, sleek, unique and exceptional.

Find two drawings that would fit each of these ideas, and explain or illustrate what makes them classic or expressive. Note when they were made, the model, the car company, the designer and car type.

space age ‘dream cars’ and production shows.

“The dawn of the ‘space age’ also shaped mid-century American automotive styling, evidenced by Carl Renner’s aeronautical influenced GM Dart Motorama, 1954, with its jet fighter needle nose, swept back rocket style wings and tail fin. Peter Wozena’s iconic Cadillac Coupe de Sabre, 1956 also features a protruding radio antenna in the rear, reminiscent of Sputnik 1.”

Anna Briers, Senior Curator, Shepparton Art Museum

Impressed with the success of Motorama, Ford also instigated Stylarama in 1956. However, road show production costs were such that Ford cancelled the project. However, futuristic car design led to the development of some exceptional designs. A two-wheeled gyroscope, called the Gyro was displayed in the 1961 New York Auto Show.

With each car company, advanced studios saw the development of one of a kind ‘concept’, or ‘dream’ cars which were never intended for production. Testing new styles and often fantastic designs, ‘show’ cars often featured at key auto shows in New York and Detroit, where they attracted huge interest, whetting the appetite of an eager public. In 1952 General Motors launched Motorama, a travelling road show complete with settings and music to accompany new models around major American cities. The overwhelming success of Motorama saw car designer Carl Renner working on a secured project for the next Motorama shows. He undertook extensive drawings of all types of car forms: coupes, sedans, rocket shaped cars, single and double bubble-top cars and even levitation cars. From Renner’s drawings, Harley Earl selected one theme, a highly sculptured sports car. Through the studio design process the magnificent La Salle II Convertible Roadster emerged.
Peter Wozena (b. 1918)
Oldsmobile Proposal, 1958
coloured pencil and graphite on tracing paper and white gouache
35.6 x 42.5 cm
Jean S. and Frederic A. Sharf Collection
Image © 2015 Museum of Fine Arts, Boston

“Peter Wozena was listed on the 1955 General Motors Styling organization chart as Chief of one Special Studio, where this drawing was probably produced.

General Motors was looking for unusual roof designs for the model year 1959 production cars. In fact, such “flying-wing” or cantilevered flat hardtops became successful selling features on the 1959 Oldsmobile four-door hardtops.”
Post war automotive design and styling was directly influenced by artists who were encouraged to imagine the future. In the World of Tomorrow exhibition in 1939, military hardware and aeronautics were already influencing ideas about the lifestyles of people living in American cities and towns.

Peter Wozena

**Short biography** - Peter Wozena grew up in Detroit. He graduated from Cass Technical High School there in 1937, the same year that his car model won 1st prize in Michigan in the Fisher Body Craftsman’s Guild competition.

He went to work for Briggs Manufacturing Company as a clay sculptor working on various auto bodies which Briggs supplied to many of the American auto companies. He was one of three winners of the Fisher Body Contest in 1939 and was hired away from Briggs by General Motors in the Pontiac studio.

He served in the Navy during World War II, designing bomb sights and military hardware, then returned to General Motors in 1946 and was assigned to the Cadillac studio. There he worked alongside Carl Renner and Homer LaGassey. He remained at General Motors until his retirement in 1974.

**Suggested activities.**

Post war automotive design and styling was directly influenced by artists who were encouraged to imagine the future. In the World of Tomorrow exhibition in 1939, military hardware and aeronautics were already influencing ideas about the lifestyles of people living in American cities and towns.

**Q1** Looking at a number of works by your favourite designer, sketch body parts, interiors or whole cars that show futuristic design.

**Q2** Imagine a place where you would find these cars. What kind of people would be driving these machines? Illustrate a scene that shows futuristic design from the mid-twentieth century.
production car design drawings.

Car drawings often featured frontal or ‘face’ views, rear views and side views. The most intensive work went in defining a car’s appearance from angled views that featured one or two sides. ‘The face’ consisted of grillwork, placement of headlights, and to a lesser extent styling of hood ornaments. The side view established the length and height of the car as well as positioning the roof line and belt line. An assortment of chrome trim options developed in the 1950’s, as did the size and height of tail fins, beginning with the 1948 Cadillac. Drawings that included both side and frontal views peaked in the late 1950’s and featured many drawings of production cars.

Presentation Art

Created in 1965, ‘Perkins has proposed some new features which would appear in the Model Year 1968 Cadillac Eldorado. The front headlights were mounted vertically on the leading edge of the front fenders; the hood was lengthened in order to accommodate recessed windshield wipers. In the final production model, the details suggested in this rendering were changed, but the overall appearance of the car is reflected in this drawing.’

John Perkins

Short biography - Born in Lansing, Michigan, Perkins went directly from high school to the General Motors Institute, an advanced technical school that trained engineers. In 1964, he graduated from the Institute, and instead of going to work as an engineer at General Motors, he went into styling, where he was assigned to one of the Oldsmobile studios.

In 1965, Perkins was moved into a Cadillac studio, where he spent more than two years working on the Cadillac Eldorado production car. In the summer of 1967 he was moved once again, this time into the Pontiac studio, where he spent another two years working on the Pontiac Bonneville production car. In each case, he was assigned to work on the best model (Eldorado and Bonneville) and on cars that were actually put into production.

In 1970, he was promoted to Assistant Chief Designer in the Buick studio, ultimately rising to Chief Designer in an Oldsmobile studio before retiring in 1999.
Charles H. Stewart (b. 1935)
Cadillac Coupe de Ville concept drawing, 12 July 1965
pencil, Magic Marker, and ink on vellum paper
53.3 x 68.6 cm
Jean S. and Frederic A. Sharf Collection
Image © 2015 Museum of Fine Arts, Boston

Charles H. Stewart

Short biography - Charles H. Stewart was a native of North Carolina. From 1951 through 1955 he entered a series of Fisher Body Craftsman’s Guild competitions, and was a regional winner in four of the five years. He attended the University of North Carolina for several years before transferring to Pratt Institute, where he graduated with a degree in Industrial Design in 1959.

Stewart was hired by General Motors, one of a large group of approximately 40 designers hired in 1959. He moved quickly among a few studios before landing in 1963 at a studio which was designing the Firebird IV show car for the 1964 New York World’s Fair. He worked alongside Bob Hubbach on a number of projects related to the Fair.

In 1964 he was transferred to the Oldsmobile Studio and assigned to the Toronado project. The basic car had already been designed when he arrived, but he was responsible for various styling changes made during the 1960s. In 1967 he moved on to the Cadillac Studio, where he worked with Wayne Kady.

He spent his entire career at General Motors, retiring in September 1997.

In Model Years 1967 and 1968, Cadillacs had grilles that ran the entire width of the front end, with two headlights on each side that were positioned one above the other. The 1969 model had a smaller grille on a prominent prow-shaped front end, with the headlights positioned side by side as in this drawing.
interior design studios.

“Recognizing the marketing value of design and the consumer demand for individual choice, car manufacturers developed specialist interior design studios. This department was concerned with producing a harmonious interplay between colour, texture and form; styling details such as dashboards, door handles, knobs, radios and upholstery, as well as typography and interior graphics.

The Interior Design and Color Section of the Styling Division of GM had a large staff of 56 designers and 43 engineers. Each of the five automobile brands had their own interior studio with additional divisions devoted specifically to trucks, aircrafts and experimental vehicles.

Interior design studios were the first places to welcome female designers, with Harley Earl at GM being the most progressive.

Modern fashion was a significant influence on designers who referenced magazines such as Vogue for concepts. Vendors of upholstery fabrics were expected to send representatives to major fashion shows in Paris, in order to keep abreast of the latest trends.

Interior design studios had to respond quickly to evolutions in technology, as well as ensure that the final product was economically viable. Advances such as seat belts, air bags, and electronic systems created new design challenges. Dealing with engineers and cost calculators often meant that less than 10% of any original design found its way into a production car.”

Anna Briers, Senior Curator, Shepparton Art Museum

suggested activities.

The front view of a car, or ‘the face’ as it was called, was one of the most important aspects of exterior car design. Many front views also include angled views of the sides of cars. Futuristic automobile design in the post war period included new types of cars such as sedans, coupes and sports cars and convertibles.

Q1 Find two contrasting car drawings made in 1959 and compare design elements that relate to styling of the face and the side view. Describe or draw the colour and shapes used for the exterior body, the finish or texture of materials, any badging, trimmings or patterning used.

Q2 Compare a particular type car drawing made in 1959 with another made in 1969. What has changed over time? Look at what is different in relation to styling of the face, the side-view or rear view features, the colours and tones, the shape and body design, interior features or finishes.
Interior Design

‘General Motors was accustomed to moving their designers from one brand studio to another in order to keep injecting fresh ideas into the designs of their various brands. In this drawing, Rieden is depicting the interior of a sports coupe, with bucket seats, a vinyl-covered steering wheel, and pile carpeting. The Model Year 1976 Chevrolet Camaro Sports Coupe did incorporate all these features.’

Dave Rieden

Short biography - Dave Rieden started working for General Motors Styling in August 1967 at Frigidaire. From there he was moved to a newly established Recreational Vehicle Studio. He subsequently transferred to the Oldsmobile, Buick, interior component, and then Chevrolet studios. This kind of annual moving pattern was a common practice at General Motors. In 1972 he was Senior Creative Designer at the Cadillac Interior Studio. The next year he had the same title at Buick Interior Studio, and in 1974 the same position at the Chevrolet Corvette Interior Studio. He retired from General Motors in 1998.

suggested activities.

Some drawings are made with gouache or poster paint and others are made with watercolour.

Q1 Find two drawings to compare the use of these materials and the effects that are created with the use of additional materials.
commercial and recreational vehicles.

“The mid-century period was characterised by a renewed interest in the value of design and the fusion of form and function with convenience. A burgeoning economy, combined with technological developments and streamlined production processes, resulted in a more competitive market with greater consumer choice. Leisure time expanded, and resources became available for non-essential luxury or lifestyle items.

Stylish commercial vehicles such as trucks and industrial tractors ultimately led to the development of recreational and sports utility vehicles. Motor home trailers that originated in the 1930’s as tubular aluminium forms were restyled in the 1950’s and increased in demand. Recreational camper vehicles and sports cars emerged as competitive products.

Following the oil crisis in the mid 1970’s car design shifted dramatically as evidenced by commercial proposals such as the Cyclar Mark IV, Mopod Vehicle Proposal in 1979 by Richard Arbib.”

Anna Briers, Senior Curator, Shepparton Art Museum

Commercial Vehicle Proposal

‘Trailer mobile homes were a very popular post-war vehicle. There was an significant pent-up demand, since none had been manufactured since 1941. This futuristic design seems a logical extension of his bus design, and was also created on his own time. His relationship with Preston Tucker gradually eroded during 1946, and Lawson decided to go into the design business with his brother in 1947.’

George Lawson

Short biography - Lawson was an experienced auto designer who had worked at General Motors in the 1930s and moved to Briggs Manufacturing Company in 1940-41. When war broke out he returned to General Motors, working on training aids (educational material) for the U.S. Treasury department, as well as instructional manuals for various war material. He continued to sketch car designs in his spare time.

Early in 1946 he was working for Preston Tucker of Tucker Corporation, designing a rear-engine car with instruments located on the steering wheel, to be known as the Tucker Torpedo. However the relationship did not last through the year.

Lawson left General Motors in 1959 to take a job with American Motors Corporation, and left AMC in 1962 to become a freelance designer.
‘The gas crisis at the end of the 1970s created an interest in fuel-efficient, single-passenger vehicles. Arbib convinced a group of investors to create a company called Convenient Machines Inc. in 1979, which would market his design for a “Mopod.” In this design, the driver is completely enclosed in a Plexiglas bubble. There are two primary wheels and two stabilizer wheels. Arbib felt that such a vehicle could be used by many different companies, as illustrated in this drawing. However, there was no interest in making such a vehicle.’
Richard Arbib (1917–1995)

Short biography - Arbib grew up on Long Island, New York. As a teenager he was interested in car and airplane design, building models for his own enjoyment and entering the Fisher Body Craftsman's Guild contest in 1936. His skill as an auto designer and model maker won him a First Prize in the New York State Senior Division of the contest, and also earned him a place in the new Industrial Design course at Pratt Institute in Brooklyn.

After graduating from Pratt in 1939, Arbib moved to Detroit to work for General Motors. While at General Motors, he began to work on armament design in the build-up to World War II; and in 1942 he moved back to New York to work at Republic Aviation as an Armament Designer. In 1945 he moved back to Detroit to run Harley Earl's privately-owned industrial design, the Harley Earl Corporation (HEC). He was responsible for creating and managing a correspondence course aimed at developing a new generation of car designers. The Detroit Institute of Automotive Styling (DIAS) and the team he assembled at HEC, provided Arbib with an important presence in the postwar industrial design world.

Arbib had a falling out with Harley Earl in 1948, and in 1949 he moved back to New York City to establish his own industrial design firm. During the 1950s his firm was spectacularly successful, creating not only innovative car designs, but also stylish designs for Century boats and Hamilton wristwatches.

suggested activities.

Car shows that presented concept or dream cars were ‘big business’ in the 1950’s and 1960’s.

Q1 What kinds of concept cars would feature in car shows today? Suggest styling or innovative design car features that would appeal to young car buyers or young families of today.
references.


further research.

“American Look“, 1958 Documentary about modern design,  
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