The Parking Garage as the Symbol of Redevelopment

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The parking garage as a symbol of the spatial and aesthetic qualities of the Redevelopment Era is one way to understand the impact of the planning, economic and political decisions of Redevelopment. Redevelopment is a phenomenon of the post WWII era which has changed the shape of our cities. The redevelopment process as a planning and economic force has been carefully studied in order to understand our political process and its intentions. Unfortunately, stated intentions and actual results are often conflicting and confusing. In urban redevelopment the actual results in spatial and aesthetic terms have yet to be thoroughly analyzed in order to understand the impact of the process of redevelopment on our built environment and ultimately the actual physical reality of our lives.

Aesthetics (as defined in Webster's New World Second College Edition) is the study of beauty and of the psychological responses to it.¹ Our built environment, that is, buildings and the spaces between them, have a tremendous unspoken psychological impact upon us. Unlike a work of art which we can choose to interact with, our buildings and spaces impose themselves upon us and we are faced with their psychological effects. "Beauty is in the eyes of the beholder" is a common response to this dilemma. Sometimes though, a particular building crosses all cultures and tastes to be considered beautiful by all, and when this occurs an attempt is made to understand the spatial, aesthetic, and human qualities it contains. A beautiful building is difficult to achieve in that it is tested on a regular basis by all who attempt to use it, allowing its complexities to be slowly discovered over time.

The parking garage as a rather recent building type is unique in its relationships to people and the city. It is frequently designed only with the car and economics in mind and perhaps some sense of an aesthetic relationship
toward the city. Peoples' psychological responses to the spatial and aesthetic experience have usually been ignored, viewing the building as only housing for the car. It is unlike great mass transportation centers of the past, where people after travelling merge into their new environment through a great common space.

Louis Kahn and Paul Rudolph had particular visions concerning the parking garage and its relationship to the city. Louis Kahn in a small sketch for a new city center in Philadelphia (fig. 1),

"emphasized the role of parking towers in defending the city center, which he now called the "forum" from automobiles. He reiterated more boldly the analogy he had used in 1953, which equated the modern city with Carcassonne: the "architecture of shopping" had the same function as the great walls that surrounded medieval cities. Carcassonne was designed from an order of defense. Similarly, a modern city must reconfigure itself, based on a new concept of the order of movement to defend itself against the destruction by the automobile"2

In New Haven Paul Rudolph hoped his Temple Street Garage which was built in 1963 would "eventually extend 1,000 feet over the connector" 3 making it a visual gateway to the city. This parking garage was to be the welcome to the new city envisioned "never as a mere utilitarian structure, but rather a symbol of civic and commercial rejuvenation."4 (fig. 2)

The first designs for parking garages were often multi-car garages with chauffeur's lodgings, in a rural setting, that had the look of a home. A Class "B" Project Problem in Design for the Society of Beaux Arts Architects in 1910 was to design an Automobile Garage. The winning student designs were published in The American Architect (figs. 3,4,5). These garages consisted of housing seven cars which belonged to one family. The garage was designed with no visual reference to the cars within, other than the large arched openings for functional
car entry into the garage. The car as personal property for the enjoyment of its owners was established through the language of the house as the architectural type.

As the number of cars increased public garages began to emerge. They were usually associated with other building types as seen in the *The Brickbuilder* competition of 1913. A supplement to this magazine was produced just for this competition which included the program and many of the entries along with the jury's comments. The program was a garage, automobile sales and service building, three stories high. The building was to provide on the first floor an automobile salesroom with administrative equipment and car storage. The second floor would provide chauffeurs' recreation room, and the third floor for car storage and repair shop. The architect was asked to show any new devices which would add to a building of this type. The building facades were to be designed in Architectural terra cotta in attempting to show the materials adaptability to the character of this building.

The plans of these buildings show an elevator or car lift as well as a turntable in the service area. Elevators were used to move the cars to the upper levels and the turntable to move the car to service it. This early connection of mechanization with the storage of the car seemed an appropriate link to the emerging technology. But any attempt to dramatically change the typical beaux-arte language on the exterior of the building was minimal. The use of terra cotta to form traditional ornamental design to announce the car seemed inappropriate to the language and spirit of the car. The traditional city building was visually maintained through the use of typical doors and windows on the facade. What did develop were changes in the proportions of these elements. The car openings changed the visual relationships of the rest of the building to give the building type its own identity.
The second prize design submitted by Valere de Mari of Chicago, Illinois (fig. 7) was liked by the jury for its originality and ornamental signage. It is the sign which became the curious new element for this competition. The large electrical sign with the gothic tower also “decorated with electrical lights” was what helped this design to achieve second prize. It was the only design which included electrical lights as part of its design bringing the building type into a more flamboyant nature. It was also a highly controversial design as “There was much diversity of opinion among the members of the jury as to the proper ranking of this design.” The ornament on the second prize design was traditional in nature, although an American as well as mechanical feel is present within it. The American eagle over the corner entryways in combination with almost-gear-like forms on the elevation begin to describe the idea of an automobile as a new and different American way to travel.

Two other entries had ornaments and signage which addressed the car more directly. The fourth prize design (fig. 8) had a garage sign that was topped with wings on the wheels; while beautiful ladies in touring cars adorned the top of a mention prize with the American flag in the center (fig. 9). These two entries address what was to become a way of life for the majority of Americans and ultimately to change the shape of our cities and our countryside.

Residential garages appeared in New York City as the street level of a townhouse. They maintained a home-like appearance giving little clues to the nature of the car. In the building on 407 Park Avenue (fig. 10) the typical door had been doubled, centered on the facade to become the garage doors. Garages also began to show up as purely themselves as seen in the Garage Building for Detroit Electric in Detroit, Michigan in 1917 (fig. 11). This building grouped doors as a way for the automobile to enter, but the doors still maintain a residential feel. Only the large scale of the glass arch began to suggest a different building type.
By the 1920's, an article titled "A Garage For Motor Trucks" acknowledged that "the rapid increase in these vehicles has caused their housing to become a commercial proposition, and this is true to the extent that the commercial garage had become a distinct type of building." Also, because of a law which eliminated pneumatic tubes for transmitting mail, motor truck service was started to deliver mail in New York City. A parking garage for the United States Postal Service was built (fig. 12). This garage took the art of storing trucks seriously. Up to this point one of the major challenges in parking garage design was that all cars were so different in their dimensions that no standards could be used in designing garages, but the fleet of relatively similar trucks (6 types in all) minimized this problem. A ramp was used rather than the mechanical system of the elevator because of cost estimation which was done in comparing both systems. Ramp design became a technical issue thoroughly discussed the following year in Architectural Forum while the issue of ramps versus mechanical constantly remained an issue. The garage for motor trucks explored the issues of section and function in a very complete way. Sawtooth skylights, pitched floors, gutters, curbs and raised platforms were all integrated into the design. The architects Ballinger & Perrot carefully analyzed the relationship of structure to numbers of parking spaces to best maximize the space while also taking into account daylight, fresh air, washing of the vehicles, and platforms for the workers to walk along with proper clearance between two backed-in vehicles. The parking garage was becoming a technical system with all of its own issues and concerns, but the traditional architecture concerns about light and people were still addressed.

One of the major technical issues was the discussion of the ramp versus the elevator. Elevators were mainly used in early multi-level garages, but according to Harold F. Blanchard "it has been gradually realized that there is much to recommend the ramp for the transportation of the self-propelled vehicle." In his
article of 1921 the ramp was discussed as older then the stairway and as relating to the hill. The automobile under its own power has the ability “to climb and descend from floor to floor”\(^9\). This basic understanding of the car as an autonomous object allowed the design of the garage to encourage the individual experience for the driver of the car. This allowed for the non-spatial relationships found in a car garage and further defined the experience as an independent one. This uniqueness of the automobile suggested a very different spatial arrangement than the great gathering rooms of train and airport terminals.

In the discussion of ramp versus elevator systems several key issues come into play: 1) the long-term cost factor of the two systems, 2) the availability of the system for certain types of usage, and 3) the maximization of the number of parking spaces. As many different garages were built each architect’s solutions to these issues becomes quite unique and are related to the site and the program. Many parking garages were built in conjunction with department stores, hotels, and office buildings which had their own unique issues of privatization, while the parking garage as an independent structure was growing. As the issues of the technical nature and practical nature of the garage were explored the functional aspect of the garage became the major concern, while the aesthetic and human needs were overlooked. Two parking garages from Portland, Oregon in the 1920 September issue of *The American Architect* (figs. 13,14) showed this utilitarian attitude in their pared-down facades. These compared to the *The Brickbuilders* design contest of 1913 looked absolutely stripped. One building by Sutton & Whitney still maintained some ornament in the Corinthian columns and the large sign but the other was even simpler in its design leaving only small pieces of ornament at the base and capital. The early excitement of the garage had begun to fade already into a purely utilitarian object.

Each garage during this time period took on its own unique characteristics.
The Fisher Building Garage was connected to the office building and "is intended primarily as a conveyance to its tenants." (figs. 15,16) 10 Each level of the garage is connected to an office building floor so the worker could move directly from the car into the office. This building designed by Albert Kahn in the late 1920's in Detroit consisted of an eleven story office building, a twenty-eight story tower, a theater, and an eleven story parking garage. There was also a connection by pedestrian tunnel to the General Motors Building across the Boulevard. The pedestrian tunnel was designed not only to support the car traffic from above but the walls were reinforced for future subway excavations. The city was rapidly changing its character and cars were a major factor in the design of the emerging city.

Other issues of technology could be found in the Fisher garage such as movable wash racks, electric operating doors, and a double ramp system in order to separate up and down traffic (fig 17). The architects of these early garages were continuing to be interested in technology as related to the parking garage as well as still thinking of the garage as a home for cars by including windows, doors and being concerned for the general climate of the interior space. But in this garage the concerns of bringing light into the lower levels was not an issue and the photographs of the garage interiors showed dark and gloomy spaces with little concern for aesthetics (fig. 18).

Early mechanical garages were interesting in their idealism of minimizing space. The cars were viewed as objects to be moved about rather than self-propelled. In order to stack as many cars as possible in as small a space as possible three-sided elevators and turntables were used as seen in the Hill Garage in Los Angeles, California (fig. 19). The Kent Automatic Parking Garage in New York City (fig. 20,21) took on its own skyscraper form including a large sign only visible from a great distance. This "patented electrically driven parking
machine" 11 allowed 1,050 cars to be parked on a 50x200 lot fifteen stories high. By the 1930's traffic and parking in our cities was an ever expanding problem, but depression and the war slowed down its growth.

The 1940's saw the unending problem of cars as a threat to the flourishing cities. San Francisco faced parking problems as in any other city but because of a unique situation was able to solve the problem in a prototypical way. The Union Square Garage (1942) (fig. 22) under the Dewey Monument was the first garage to be completely underground. Because of the intense activity in the “Triangle District” parking problems were seen as a threat to the thriving district, so all the property owners of this area got together with a vision to maintain their district. “That vision held them together through two years of discouraging conferences in San Francisco, Washington and New York.”... the idea that a little park “where office-workers lunched on the sunny grass, and fed a resident flock of pigeons at the base of Dewey Monument” 12 could cover a parking garage created the underground vision. It was analyzed that a “four-story building under the Square could park as many cars as line the curbs of 108 city blocks.” 13 Once the economic and political problems of underground landrights were resolved the way was paved to solve the technical problems of putting a garage underground. These technical problems were addressed with all the engineering and systems know-how as well as city requirements concerning air quality for windowless buildings.

But, a more critical issue was one of the park or what was the roof of the garage. It was because of an “agreement between the business corporation and the San Francisco Park Commission...that there would be a park even lovelier than before” 14 that at least $100,000 was to be spent to create the park. This unique approach saved not only an existing park within the city but improved it! The Union Square Garage also addressed other human needs in its design creating a new environment for people within the parking garage making it a most
successful place.

The design allowed for the top floor to become a gathering spot. It was to contain “waiting rooms and rest rooms, offices, sales room for accessories, and the area for servicing of the cars”. The garage was to be an “attractive place, where attention is given to some of the finer points of serving the public”. The theme “A Garage for Women” set in motion the many amenities that were to be designed for this garage. Women’s waiting and rest rooms were elegantly decorated, packages were delivered here, private telephone lines were connected to the department stores, cars could be delivered to the stores, and even a nursery was planned. A communication system was installed on the garage levels where anyone could contact anyone else within the garage. Although many of these amenities could be viewed as a way to make a new and perhaps frightening idea of an underground garage attractive to its users, mainly the 85,000 women coming in daily to shop, the care for human concerns and aesthetics along with the functional needs being met made this project a success. Timothy L. Pflueger, architect; Huber & Knapik, structural engineers; Leland & Haley, mechanical engineers; G.M. Simomson, electrical engineers; Frederic Hall, RFC engineer; bulkheading-L.H. Nishkian, MacDonald & Kahn; the stockholders, the business corporation, and government agencies came together to solve a very real problem with their city. A real place was created because of the cooperation between all of the professionals who had the viability of the city at heart, and because of the success of this project many other cities began planning underground parking garages.

But, by 1946 in an article in Architectural Forum titled “Parking Jam” the continuing problem with cars and the city was discussed again. By this time all the methods that could be thought of to help house cars had been tried, including roof-top parking lots, open wall multi-deck parking garages, skyscraper
mechanical garages, under parks, and under roads, but still more space was needed. The following concluding section of the article sums up the issues very well:

"Above all, last month was claxon-loud with the voices of contending theorists. There were those who opposed all concentrated garaging on the theory that it would only attract still more motorists to the center of town: those who urged that every "traffic-maker" - theater, large store, apartment house, office building, etc., take off-street care of the traffic it created; the weary philosophers who hoped to persuade suburbanites to leave their cars uptown. Said many a partisan of one or another remedy - city traffic is precisely what cities thrive on; drain its corpuscled traffic life-blood from a commercial community and you kill it.

One observation was being made without contention: it all needn't have been so bad. Looking back at the third of a century in which cities had known the motor car, the traffic doctors pointed out the obvious - if streets and city plans had been tailored to the enlarging needs of a motor age; if buildings had been erected with an understanding of a growing parking demand, the crisis need not have struck. As usual, hindsight was keen than foresight - and as useful as headlights at noon."16

The solution to the car situation seemed obvious - the city needed a new form to adjust in a very modern way to what had become an American obsession. More parking garage solutions continued to be explored, built, and talked about, although most seemed anti-climatic and even absurd. In 1951 Albert Buranelli envisioned a garage in the center of an office tower that consisted of a rotary for each floor level with four elevators in the center to serve 31 cars on each level. He called it the Rotogarage and had the design patented (fig. 23). Mayor William O'Dwyer of New York suggested the problems would be solved by "paving over the streets and traffic on them, and starting in clean on a new level eight feet higher."17 Designs continued to get sparer and aesthetics more economical as seen in the parking garage designed by Robert Law Weed & Associates in Miami (fig. 24). This garage, by staggering the floors and using shorter steeper ramps maximized
the car to floor ratio. The garage also had a "patented Smooth Ceiling System." Parking Decks were built from the top down in order to preserve parking underneath during the building process as seen in the parking for the Zion Cooperative Mercantile Institute by Bowen, Rule & Bowen, engineers (fig. 25). This garage also had the no-frills aesthetic as evident in the minimal design of the structure just consisting of slabs and metal rails. A self-parking Downtown Center Garage in San Francisco designed by George A. Applegarth in 1955 advertised itself as self-parking (fig. 26). It was built after "four years of research and study on the design, construction, operation and financial return on Parking systems." 18 It was considered a success. This garage still contained some of the amenities of the older garages with checking stations and designed display cases (fig. 27) in the entrance lobby but the major interest of the article was the technical data concerning the prestressed pylon to resist earthquake forces, as well as the "self-parking, locking of cars, and validation of parking time." 19

Parking continued to remain an issue in a 1963 Article titled “Parking: The Crisis is Downtown” in *Architectural Forum* which defined the problem as one of location. That is, there were enough parking spaces, but just not in the right places. More spaces were needed close to downtown shopping areas with walking access to the shopping district. But, "the principle problem facing parking-authority planners is how to acquire the necessary land." 20 Although "according to most experts there is no way of solving the parking crisis without simultaneously attacking the mass transit problem" it was still recognized that "the factor most likely to affect the downtown parking garages will be the efficiency of any rapid transit system devised to serve downtown... if attempts to store vehicles on the fringes of the city are successful, they will take much of the pressure off the authorities to provide further parking facilities in the downtown." 21 With this sobering note parking garages continued to be built and
new systems to make them more efficient or to fit tight urban sites were designed. This same article highlighted two garages as excellent examples of excellency in garage design: the Speed-Park system and Paul Rudolph's Temple Street Garage.

The Speed-Park system was the mechanized garage run by computer built in Midtown Manhattan's theater district. (fig. 28) It contains a "steel truss tower system as high as the garage that travels horizontally at 180 feet per minute. Inside the tower is a 200 f.p.m. elevator with a vehicle capacity of 5,000 lbs, which carries a massive fork-lift device (weight, 27,000 lbs.) that shovels cars into the parking stalls." 22 This system although heralding the new age of technology "can only be seriously considered where land is at a premium; where there is intensive, round-the-clock use (so that it eliminates three shifts of car jockeys rather than just one); or where the situation puts convenience well above price." 23 The garage also was applied to office situations by architect William Lescaze allowing the building driver direct access to his work environment not unlike the earlier Fisher Building Garage. What was old is now new with a mechanical twist but ultimately the parking issue and the world of the car remained.

The Temple street garage was of a different breed. It was made possible by the clearance of the Oak Street Neighborhood in New Haven in order to build the Oak Street Connector (fig.29). The 1949 Housing Act provided the tools for Urban Redevelopment, and Maurice Rivitol had earlier (1941) provided the studies for the Master Plan of New Haven and what was new was "the ascendancy, some would claim the supremacy, of roads as the framework of the city." 24 Route 34 was to provide a link to the suburbs from the west to the Connecticut Turnpike (fig. 30). The importance of this idea of roads was within the Rotival report of 1941 which stated:

"A city which loses its traffic is no more a city in the proper
sense of the word... By letting the main traffic pass outside the city limits, the city reduces its importance to ... one of a small local center and therefore must accept the consequences... The entrance to the city through its front will give again to the plan (the nine squares) its meaning lost for so many years and will give to the original composition (the nine squares again) its sense, its life." 25

Mayor Lee and his development administrator Edward Logue had the vision. New Haven's Oak Street Connector Project was "not only going to lift New Haven into the twentieth century, we'll push it forth into the twenty-first... New Haven will become the first slumless city, a truly new New Haven." 26 With these idealistic goals in mind New Haven proceeded to transform itself into this new vision. The link between President Griswold of Yale and Mayor Lee of New Haven took on importance within the redevelopment of New Haven. One link between the two men was "the actual appearance of New Haven; together Lee and Griswold discovered the wonderful world of architecture, and a walk through New Haven today shows clearly the triumphs and failures of this discovery". 27

The Temple Street Garage as part of this vision for the future, was an attempt to design an aesthetic relationship to the emerging city of redevelopment (fig. 31). As Paul Rudolph saw it, the garage would have stretched across the Oak Street Connector and therefor would have welcomed and gathered the cars into the city. The garage was designed as an open structure, a "work of sculpture in the round" (fig. 32) 28 which then passed on its monumental qualities to the department store which attached itself to the side. The rough pored-in-place and cast concrete panels raised above the ground provide an overwhelming continuing ribbon of alternating darks and lights stretching to the 21st century. One would have seen this vision expanding on either side of the Oak Street Connector as they arrived into the city.

The garage cost $ 5 million "(almost twice the usual austerity model)." 29 It
also had its share of unique technical innovations such as a web of electrical wires embedded to keep ramps warm in winter, a system of electric eye signals responsive to sound waves to direct cars and change ramps accordingly, and landscaping to give the feeling of a natural hill (fig. 33). There were entries at each level into the department store which fed off its side, but beyond the large sculptural gesture there were no aesthetic or humanizing spaces within the garage that spoke of a great gathering hall. The gateway was purely sculptural, expressing the strength of the car to change our land and our lives. Ultimately if one parks at the top of the garage an incredible new landscape is found. The world of the peaks of the city, the beautiful spire tops of the towers of New Haven are on equal level with you and the car, and strange new concrete forms disguised as parking lights and elevator mechanicals propel you into the 21st century.(fig. 34)

Garages continue to be built, innovations continue, and so does the problem of the city. But for a moment, a garage as an aesthetic that can create an emotional response to its overwhelming form existed as a symbol of a future and of the power of the car. "At base was belief in individual freedom of action as well as respect for change as progress. Basic also was the pursuit of privatism, utilitarianism, and egalitarianism, values honed by pioneer circumstances."³⁰
Endnotes

4 Ibid.
6 Ibid.
9 Ibid.
13 Ibid., p. 20.
14 Ibid., p. 25.
15 Ibid., p. 28.
18 "$\text{Downtown Center Garage},$ Architect and Engineer, April, 1955, p. 9.
19 Ibid.
21 Ibid.
22 Ibid., p. 106.
23 Ibid.
25 Ibid., p.17.
27 Ibid., p. 82.
BIBLIOGRAPHY


FIG A: SELF-PARKING
DOWNTOWN CENTER GARAGE
(ARCHITECT AND ENGINEER
APRIL, 1955: COVER)
FIG 1: NEW CENTER CITY, PHILADELPHIA / LOUIS KAHN
(LOUIS I. KAHN - DAVID BOWNIEE D. G. DELONG P 85)

FIG 2: PAUL RUDOLPH'S TEMPLE STREET GARAGE
(ARCHITECTURAL FORUM, THE CRISIS IS DOWNTOWN
FEBRUARY 1, 1963)
FIG. 3: CLASS "B" PROJET (PROBLEM IN DESIGN) AN AUTOMOBILE GARAGE.

STUDENT WORK, SOCIETY OF BEAUX-ARTS ARCHITECTS 1910
FIG. 8:
FOURTH PRIZE DESIGN.

COLOR SCHEME:

BODY OF BUILDING TO BE MATT GLAZED TERRA COTTA OF AN OLD IVORY CREAM COLOR. THE COVES UNDER CORNICE ARE TO BE A DELLA ROBBIA BLUE WITH THE CENTER OF SHIELD IN GOLD, EDGED WITH A SOFT CREAM COLOR AND LEGEND CREAM BLUE GOLD.

SCALE FOR DETAIL

ELEVATION
PLANS

STORAGE

FIRST FLOOR PLAN

SECOND FLOOR PLAN

THIRD FLOOR PLAN

BRICKBUILDERS
COMPETITION
FOR A GARAGE
AUTOMOBILE
SALES & SERVICE
BUILDING
SUBMITTED BY

DEDON & CO.
GARAGE, No. 407 PARK AVENUE, NEW YORK
MISERRE, CROSS & CROSS, ARCHITECTS

Fig. 10.
GARAGE BUILDING, DETROIT, MICH.
MESSRS. MILLER & EISEN, ARCHITECTS

Fig. 11:
FIG 12: THE UNITED STATES POST OFFICE GARAGE, NEW YORK
BALLINGER AND PERROT, ARCHITECTS
AGARAGE FOR MOTOR TRU
THE AMERICAN ARCH. 1910

TRANSVERSE SECTION LOOKING EAST

Detail Section showing the construction of the roof, smooth skylights, pitched floors, gutters, curbs and raised platforms.
FISHER BUILDING GARAGE, DETROIT, MICH.—ALBERT KAHN, INC., ARCHITECTS

Fig. 116

(The American Architect
February 20, 1929)
Fig. 17: Fisher Garage
(The American Architect
February 20, 1929.)

Fig. 18: "Interior View"
(The American Architect
February 20, 1929.)
HILL GARAGE.
LOS ANGELES, CALIFORNIA
KENNETH MacDONALD, JR. & COMPANY, ARCHITECTS

The site of the Hill garage is 78 feet wide and 155 feet deep. The building is thirteen stories high and has a capacity of about sixty-eight cars on each floor or a total of approximately eight hundred and fifty cars. The basement and first two floors are connected with the street level by means of ramps. Three specially designed elevators are employed to serve the upper floors. These elevators are spaced about fifty feet apart on one side of the building. Doors are provided on three sides of each elevator. A turntable on each car permits moving cars in three directions and results in a plan requiring minimum aisle space. Each elevator is twenty-one feet square. The turntables, twenty feet in diameter, will accommodate two medium-sized cars at one time. The turntables are electrically operated under push button control. Two man lifts permit employees to go from floor to floor without interfering with automobile traffic.

Fig. 19: The Hill Garage
(The American Architect
April 5, 1928.)
KENT AUTOMATIC PARKING GARAGE, NEW YORK
JARDINE, HILL & MURDOCK, ARCHITECTS

FIG. 20:
(THE AMERICAN ARCHITECT
JUNE 20, 1928.)
SECTIONAL DRAWING, KENT AUTOMATIC PARKING GARAGE, NEW YORK
JARDINE, HILL & MURDOCK, ARCHITECTS

THE OPERATION OF THE GARAGE IS BASED ON A PATENTED ELECTRICALLY DRIVEN PARKING MACHINE WHICH IS SENT UNDERNEATH THE MOTOR CAR, WHERE IT ENGAGES WITH THE REAR AXLE, AND CARRIES THE CAR IN EITHER DIRECTION FROM THE ELEVATOR PLATFORM. MANUAL HANDLING OF AUTOMOBILES IS THUS ELIMINATED. THE GARAGE, COVERING A LOT 50X200 FEET, WILL PARK ONE THOUSAND AND FIFTY CARS.

FiguRe 21:
(THE AMERICAN ARCHITECT
JUNE 20, 1928.)
Union Square Garage as visualized by the architect before improvements were started. Note fine detail, including buildings.

**FIG. 22: UNION SQUARE GARAGE ARCHITECTS RENDERING**

("BUILT DOWN INSTEAD OF UP"
ARCHITECT AND ENGINEER
AUGUST, 1942.)
Cutaway drawing shows scheme of operation. Left is plan of typical floor. Rotor stores 28 cars, with three more in dead space between elevator shafts. Below is plan of street level.

Fig. 23. "RotoGarage" (Architectural Forum February, 1957)
Zigzag floor slabs outline car stalls and cut dead load of parking decks. Railings of continuous 1" rods 12" o.c. will stop a 4,000-lb. car traveling 20 mph; ½" rods 4" o.c. and 4' high are to restrain small children.

Fig 24: Parking Garage (Architectural Forum, 1955)
FIG. 25: MIAMI GARAGE (ARCHITECTURAL FORUM, SEPTEMBER, 1949.)
FIG. 26: "SELF-PARK" (ARCHITECT AND ENGINEER, APRIL, 1955.)
CHECKING STATIONS

Conveniently located on ground level, adjacent to lounge area and automotive service department.

ENTRANCE LOBBY

Interesting merchandise displays line one wall of the entrance. Checking Stations are in rear.

FIG. 27: "SELF-PARK" DOWNTOWN CENTER GARAGE

(ARCHITECT AND ENGINEER, APRIL, 1955.)
Cars are loaded sideways onto Speed-Park's elevator tower (above and left). As the car is raised by the elevator at 200 f.p.m., the tower rolls along a track bed set in a pit below grade. Signals from a computer stop the elevator in line with the preselected parking stall. A fork-lift mechanism on the elevator can move the car to slotted platforms in stalls on either side. Platform holds front wheels in place, can accommodate any car length on slotted rear section.

FIG. 28: SPEED PARK SYSTEM
(ARCHITECTURAL FORUM, FEBRUARY, 1963)
FIG 29: OAK STREET BEFORE AND AFTER
(THE MAYORS GAME)
FIG. 31: "THE TEMPLE STREET GARAGE"
(HEARNE'S LEWIS CO., '63 NEW HAVEN COLONY HISTORICAL SOCIETY)
FIG. 32: "GARAGE AS SCULPTURE"
(Architectural Record, February, 1963)
FIG. 33: "LANDSCAPING TO GIVE THE SENSE OF A HILL"
(L'ARCHITECTURE D'AUJOURD'HUI, OCT–NOV 1963.)
Fig 34: "A Future"
(Architectural Record, Feb, 1963)