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Historic Resources Study
Blue Ridge Parkway

THE BLUE RIDGE PARKWAY HISTORIC RESOURCE STUDY

Prepared by: Ian J. W. Firth
School of Environmental Design
University of Georgia
Athens, Georgia

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II HISTORIC CONTEXT: American Parkways

Introduction

Parkways are associated with important developments in the history of American landscape architecture and engineering, namely the evolution of the modern highway and the development of city, regional, and national parks. Parkways have taken several forms in their hundred year history.[1]

They originated in the 1860s as boulevards connecting city parks. The idea was introduced to America by Frederick Law Olmsted and Calvert Vaux. The advent of the automobile revolutionized the design of highways and spurred the growth of cities in the early years of the 20th century. Parkways became suburban expressways linking cities such as New York and Washington to parks and open spaces within their regions. The most ambitious projects came in the 1930s with the development of long distance rural recreational parkways within the National Park System. Finally, parkways were built which were essentially landscaped freeways with little or no connection to parks. The development of these parkways was ended in the late 1950s by the development of federal interstate highways.

The following chronological account of the development of parkways is in four parts:

- 19th century urban parkways
- 20th century suburban parkways

- rural national parkways
- high-speed parkways.

II A 19th Century Urban Parkways

Olmsted and Vaux introduced the idea of wide boulevards to connect city parks and open spaces in their proposals for Prospect Park in Brooklyn. In their "Preliminary Report to the Commissioners for Laying Out a Park in Brooklyn, New York" of 1866, Olmsted and Vaux suggested the creation of a "shaded pleasure drive" running from the park to the ocean and the East River.[2] Two years later they enlarged upon this idea proposing a "series of ways designed with express reference to the pleasure with which they may be used for walking, riding, and driving of carriages, for rest, recreation, refreshment and social intercourse."[3] A plan of the "parkway" showed a thoroughfare 260 feet wide, with a central roadway flanked by lines of trees beneath which were walks, and side roads providing access to adjacent properties. The illustrated parkway had a character similar to the boulevards of Paris which Olmsted had visited in 1859.[4] Olmsted and Vaux recommended routes for two parkways in Brooklyn -- Ocean and Eastern (originally named Jamaica) -- but only a part of the latter, leading into the plaza of Prospect Park, was built.[5]

In 1868 Olmsted and Vaux also proposed parkways for two other cities -- Buffalo and Chicago. At Buffalo, New York, they produced a plan for a comprehensive system of parks and

parkways, much of which was eventually realized under Olmsted's guidance.[6] The parkways were generally straight boulevards linking three major parks. Outside Chicago their proposal for a "suburban village at Riverside" included a parkway to link the suburb with the city. This parkway was to vary in width from 200 to 600 feet and provide an opportunity for "taking air and exercise" on the nine-mile journey to and from work.[7] Although the suburb was built, the parkway was never constructed.

These three proposals defined the parkway idea which was then adopted by other designers in other cities, for example by H.W.S. Cleveland in Minneapolis.[8] The early parkways were broad tree-lined streets leading to parks. They could be straight and formal, or winding and picturesque, depending on the amount of space available.[9] Their breadth allowed different types of traffic--through, service and pedestrian--to be separated, and their vegetation was intended to make them attractive places for recreational walking and driving.

The role of parkways was expanded later to include the conservation of natural resources through the works of Olmsted and Charles Eliot in Boston. Olmsted was responsible for the construction of a Promenade, renamed The Parkway, beside the Muddy River from the Back Bay to Franklin Park. This project, initiated in 1880 and carried out over the next 15 years, involved cleaning up and replanting the banks of the river.[10] Eliot, in the 1890s, advocated a metropolitan system of parks

linked by boulevards or parkways.[11] The system was planned both to provide recreational opportunities for the rapidly growing city, and to protect natural scenic areas from that growth. An additional argument for the construction of the boulevards was to make work for the unemployed.[12] So by the end of the century parkways had become associated with several ideas which were to have greater force in the 20th century: restoring polluted rivers, protecting natural areas, and relieving unemployment.

II B 20th Century Suburban Parkways.

The advent of the automobile transformed the American economy, society, and environment.[13] The speed of automobiles not only made whole expanses of open country accessible to the automobile owner, but introduced new requirements both in the design of roadways and the treatment of adjacent landscapes.[14] The need for long radius curves and easy grades made it more difficult to fit a motor road to existing contours. Curves had to be carefully calculated both in relation to topography and safety. Banking was desirable on curves, and center lines had to be marked. Automobiles damaged water bound macadam surfaces; a harder, smoother surface was required. Such a pavement allowed the use of a lower crown and more variety in cross sections. Intersections were particularly dangerous and had to be kept as few in number as possible. Considerable expense to avoid crossings

at grade was soon seen to be justified. Finally, travel at speed provided a new visual experience. The view ahead of the vehicle became of greater importance than the view to the side, and high speeds required landscape design at a new scale.[15]

Some of the first purpose-built motor roads were sponsored by racing enthusiasts. On Long Island, in 1908, a private corporation headed by W.K. Vanderbilt constructed the first "motor parkway." This was a two-lane toll road running from Lake Ronkonkoma in the middle of the island to the Horace Harding Boulevard in the metropolitan area, a distance of 48 miles.[16]

The first parkway designed for automobiles and built with public funds was the Bronx River Parkway. This runs north from New York's Zoological Park and Botanic Garden in Bronx Park to Kensico Dam at the southern limit of the city's water supply system in Westchester County. It follows the Bronx River valley a distance of 15 miles. The idea for this parkway originated in a campaign launched in 1904, designed to clean up the Bronx River and to protect the Zoological Park and Botanic Garden.[17] In 1907 the Bronx Parkway Commission was set up by New York State to carry out a program of conservation, reclamation, and park development.

The building of a road was not a major part of this program at first, but it became increasingly important as the work progressed. In 1912, Jay Downer was appointed the chief

engineer. He assembled a talented team of engineers and landscape architects. Leslie G. Holleran, the deputy chief engineer, was in charge of the construction work. Arthur G. Hayden was the design engineer responsible for engineering the parkway bridges. The chief landscape architect was Hermann W. Merkel who had been educated in Germany. Gilmore D. Clarke, the superintendent of landscape construction, prepared architectural designs for several of the bridges. Other bridges were designed by consulting architects, including Charles W. Stoughton.[18]

Construction of the road began in 1916 and was completed in 1925.[19] The parkway road had four ten-foot wide lanes of cement concrete. Designed to allow speeds of 35 miles per hour, it had a curvilinear alignment following the river.[20] Merkel had recommended separating the north- and south-bound lanes, but had been overruled by the Commission. However, the roadway was divided in several short sections. The most important feature was the limited access to the road; the roadway was separated from adjacent properties by park land, and advantage was taken of its location in a valley to carry intersecting roads over the parkway road on bridges. Most of these bridges had a new type of rigid frame reinforced concrete structure developed by Hayden. They were faced in native granite so they would sit well in their natural surroundings.

The Parkway reservation varied in width between about 200

feet and 1200 feet with an average width of 600 feet.[21] Within this space Merkel designed naturalistic landscapes of woodlands, meadows, and lakes. The river and lakes were to be the focal points of views from the road, and a dense planting of trees screened developments beyond the reservation boundaries. The river channel was rerouted in several places to avoid bridging it, and deepened and widened as a flood control measure and to increase its recreational attractions. Once the various sources of pollution were removed the river was opened for recreational use.[22]

The success of the Bronx River Parkway in cleaning up the river valley and providing a safe and pleasurable experience for motorists, in marked contrast to the chaotic conditions on most roads, had a positive effect on land values in Westchester County.[23] Enthusiasm for the parkway led to the establishment of the Westchester County Park Commission in 1922, with authority to acquire lands for parks and parkways. Over the next ten years this Commission built more than parks and a system of interconnecting parkways including the Hutchinson River Parkway, the Saw Mill River Parkway, the Briarcliff-Peekskill Parkway and the Cross County Parkway, plus a 30-mile extension to the Bronx River Parkway.[24]

Jay Downer and the leading members of his design team were engaged by the Westchester County Park Commission. They applied lessons learnt in the building of the Bronx River Parkway to the design of the Westchester system. The roadways

in the new parkways had the same four-lane cross-section as the Bronx River Parkway, but their alignment was modified by the introduction of longer sweeping curves and more effective super elevation to permit higher speeds.[25] A strip of land at least 250 feet wide was acquired for each parkway right of way, but this was often extended to incorporate scenic features, to provide recreation areas, and to prevent encroachment by private development.[26] Grade separated intersections were built at nearly all major road crossings. Stone faced, concrete arch bridges were characteristic features of all the parkways. The emphasis throughout the system was on fitting the parkways into the regional landscape. Park lands were generally planted with native species, and boundaries were not fenced. Designs of buildings along the parkways -- gas stations, comfort stations, and wayside restaurants -- were based on studies of vernacular building materials and methods.[27] Downer's design team became noted for the high level of interdisciplinary cooperation, and the Westchester County Park Commission proved to be a training ground for designers of later parkways, including Wilbur Simonson (Mount Vernon Memorial Highway) and Stanley Abbott (Blue Ridge Parkway).

While the Westchester system was under construction the Long Island State Park Commission, under the direction of Robert Moses, began to develop another important network of parkways. Subsequently Moses as Commissioner of Parks for New

York City coordinated the design and construction of a system of parkways within that city.[28] By 1934 there were some 114 miles of parkways in Queens, Nassau, and Westchester counties.[29] In the design of these parkways there was an increasing emphasis on higher volumes of traffic traveling at higher speeds. Meadowbrook Causeway to Jones Beach on Long Island, opened to traffic in 1934, was the first fully divided limited access highway in America.[30] Some of the later New York City parkways were essentially expressways, with narrow rights-of-way and no recreational function.[31]

Meanwhile, parkways were being built in a number of other cities inspired by the ideas of the City Beautiful movement. Amongst these cities was the nation's capital. The McMillan Plan of 1902 for Washington, D.C., had called for the creation of several parkways to link major parks and bridges within the city and to connect the city with Great Falls upriver and Mount Vernon downriver.[32]

The Rock Creek and Potomac Parkway was the first of these parkways to be authorized. Legislation passed in 1913 established a Commission "for the purpose of preventing the pollution and obstruction of Rock Creek and of connecting Potomac Park with the Zoological Park and Rock Creek Park."[33] This purpose closely paralleled that of the Bronx Parkway Commission. Several federal agencies shared responsibility for the design and construction of the parkway: the Rock Creek and Potomac Parkway Commission, the Bureau of

Public Roads, and the Office of Public Buildings and Grounds under the Corps of Engineers. Frederick Law Olmsted Jr. was active in initiating and designing the parkway. He had been a member of the McMillan Commission, and as a member of the Fine Arts Commission he reviewed, in 1916 and 1925, the designs prepared by the Corps' landscape architect James G. Langdon.[34] Construction began in the mid-1920s by which time the parkway's potential importance as a traffic artery was already apparent. Construction was delayed by land acquisition problems and the parkway was not completed until 1935.[35]

The Mount Vernon Memorial Highway had been opened three years earlier, which made it the first federal parkway to be completed. It had been commissioned in 1928 and was built in some haste to be open in time for the 200th anniversary of the birth of George Washington. The selected route began at the southern end of the proposed Arlington Memorial Bridge at Columbia Island, passed through Alexandria, and led to the entrance of Mount Vernon -- a total distance of 14.6 miles. This riverside route was preferred over a shorter inland route because it passed close to many historic sites and provided a series of views across the Potomac.[36]

The design and construction of the parkway was the responsibility of the Bureau of Public Roads. R.E. Toms was the Principal Highway Engineer in charge of Design. However, the Bureau sought the advice of Downer and Clarke on the

design, acknowledging their outstanding work on the Westchester parkways. Clarke, in particular, played an important role, giving advice on land acquisition and design issues, providing information on Westchester parkway design standards and details, drawing sketch elevations for all the bridges, and facilitating design reviews by the Commission of Fine Arts.[37] Two Westchester County Park Commission staff members transferred to become resident members of the Bureau of Public Roads design team. Wilbur Simonson became Senior Landscape Architect and was responsible for the Development Plan and all the landscape work. Henry Nye, a plantsman who had worked at both the Arnold Arboretum and the Olmsted Brothers Brookline office, assisted Simonson with the planting design.[38]

The Development Plan defined the intended character of the Highway. It was to be a dignified processional way, emphasizing natural features rather than any technical or engineering feats of construction.[39] The road was designed for automobiles travelling at 35 miles per hour, with a curvilinear alignment closely following the topography. Curves were connected by transition spirals with only short tangents (except along Washington Street in Alexandria and along a stretch which used a railroad right of way). Access to the road was limited, but not all junctions were grade separated. Median strips were provided at certain curves and intersections, and there were a series of traffic circles

placed at strategic points which served to slow traffic. Eight bridges designed by Clarke were similar to those along the Westchester parkways. The road was located within a 200-foot right-of-way. Planting alongside the roadway was designed to control the views from the road, using native plants massed in a naturalistic way. Covenants and easements were obtained to try to protect the Highway from intrusions by commercial developments.[40].

In his Final Landscape Report, Simonson commented that the Mt. Vernon Memorial Highway "served as a valuable research laboratory for many types of problems of a scientific and artistic nature".[41] Among the innovations mentioned by Simonson was the use of newly developed earth-moving equipment to create a streamlined alignment and cross-section, which was widely admired.

In 1930 legislation authorized the extension of the Mount Vernon Memorial Highway up the Potomac to form the George Washington Memorial Parkway -- an ambitious proposal in accordance with one of the McMillan Commission's recommendations. Construction started in 1936, but was not completed until 1966.[42]

II C <u>Rural National Parkways</u>

In the 1930s the National Park Service became involved in the provision of recreational areas close to the centers of urban population in the East. This pointed a new direction

for an agency which had been established to protect spectacular landscapes in the West. It was a response to the rising demands of a mobile urban population with increased leisure time associated with a shorter working week and unemployment.[43] Parkways were the first recreational areas to be incorporated into the National Park System.

When the National Park Service assumed responsibility for maintaining the Mount Vernon Memorial Highway in 1934, it was already engaged in the planning and design of two other parkways -- Colonial Parkway and the Blue Ridge Parkway. The Service already had considerable experience in the design and construction of park roads in the West. Park roads were the joint responsibility of the National Park Service and the Bureau of Public Roads under the terms of a 1926 interagency agreement. Design standards and procedures had been developed in the western parks which were to have a strong influence on the construction of the new parkways, particularly the Blue Ridge Parkway.

In the development of the early National Parks in the West a design philosophy had evolved which sought to fit the works of man into their natural settings by the careful design of roads to minimize their impact on the landscape, by the use of a "rustic" style of architecture, and by a naturalistic approach to landscape design.[44] The first park roads in Yosemite and Yellowstone had been built mainly by the Army Corps of Engineers.[45] At first attention was concentrated on

the practical problems of constructing roads in difficult mountainous terrain. But Army engineers, such as Hiram Chittenden at Yellowstone, also recognized the importance of protecting the natural scenery of the parks by minimizing the length of roads, and by following construction with a program of landscape improvements.[46] When the National Park Service took charge of the parks in 1916, Horace Albright, the assistant to the Director Stephen T. Mather, was critical of the Army roads.[47] In part this may be attributed to the congestion and deterioration which had followed the admission of automobiles in 1913. In 1918 the National Park Service issued a statement of policy which emphasized the importance of landscape aesthetics.

Following the interagency agreement with the Bureau of Public Roads in 1926, new standards were established by Park Service landscape architects and Bureau engineers for the planning, design, and construction of park roads.

> The landscaping of the National Park Highway System has as its essential aims the diminution of scars; the introduction of certain elements of grace in alignment; the use of architecturally pleasing structures; and the protection of trees, shrubs, and other natural growths from destruction and damage during construction.[48]

The scars in cuts and fills on mountain roads were reduced by careful control of blasting operations and by the use of riprapped embankments and retaining walls. A curvilinear road alignment was carefully fitted to the topography, and the use of spiral transition curves gave grace to the alignment. Rustic stonework became a feature of park roads, being used in

bridges and culverts, retaining and parapet walls, and where necessary for tunnel portals.[49] Natural vegetation beside the roads, protected during construction, guided the selection and use of plants to reclothe bare slopes.

These standards were first applied in the East in the building of Skyline Drive in Shenandoah National Park. The idea of a mountain-top road accessible to city dwellers of the Northeast had been a key element in proposals to establish the National Park.[50] Construction of the road began in 1931 and a section in the middle of the park gave access to President Hoover's fishing camp on the Rapidan River. Charles E. Peterson, the landscape architect, and William M. Austin, the engineer, had both worked on western park roads,[51] and the road was designed along western lines. However, the design and construction of the first section was done in haste and the alignment lacked grace. Later sections were built to higher standards.[52] To complete the similarity to western park roads, all evidence of human settlement was removed from the mountains in the park, so that motorists looked out across an apparent wilderness.

Charles E. Peterson was also involved in the design of the Colonial Parkway, but by virtue of its function and location, this parkway was modelled on the Mount Vernon Memorial Highway. The parkway was to be an integral part of the Colonial National Monument, authorized in 1930, and would connect Jamestown, Williamsburg, and Yorktown.[53] In 1931

contracts for grading the first nine miles were let[54]; however, it was to take more than 20 years to complete the 23-mile parkway. It is essentially a processional way between historic sites, and its characteristic features -- such as its river views and brick faced bridges -- are products of its tidewater location.

The construction of the Skyline Drive and Colonial Parkway were assisted by an infusion of New Deal funds and labor,[55] but the Blue Ridge Parkway was from its beginnings a product of the New Deal. The New Deal was the Roosevelt Administration's program of relief, recovery, and reform aimed at solving the economic problems created by the Great Depression of the 1930s. The Blue Ridge Parkway was part of this program. It was promoted as a means of bringing relief to the people of the Appalachians. The economy of the region had long suffered from isolation, unproductive agriculture, and exploitive mining and lumbering. Road building was seen as the most effective means to relieve unemployment and stimulate the regional economy.[56] The idea of extending the Skyline Drive nearly 500 miles to the Great Smoky Mountains National Park was advanced in the early months of Franklin D. Roosevelt's administration. It was approved in November, 1933 and funded in December under the provisions of the National Industrial Recovery Act.

The Blue Ridge Parkway represents a fusion of ideas drawn from eastern parkways, particularly the Westchester system,

and western park roads. Downer and Clarke provided advice on route selection and parkway design, but ceased to act as consultants after a dispute with the Secretary of the Interior over their fees.[57] However, they had ensured the appointment of a person from their Westchester staff -- Stanley W. Abbott, as the Resident Landscape Architect. William M. Austin, who was already working on the Skyline Drive, became the Resident Engineer. The project was supervised by Thomas C. Vint, Chief Architect of the National Park Service, and H.J. Spelman, District Engineer in the Bureau of Public Roads, Arlington, Virginia office. They ensured that the design and construction met the agencies' standards.

The design of the Blue Ridge Parkway is notable for a number of innovations which are described in detail in the next chapter. The project was far more ambitious in scale than any of its predecessors. The goal was to open up the region to vacationing motorists from the cities of the Eastern seaboard. To achieve this a modern highway had to be fitted into very mountainous terrain. Given the great length of the road the designers recognized the importance of scenic variety. This led them to an appreciation of the value of conserving the settled rural landscapes in Virginia, as well as the spectacular wilderness scenery of the high mountains in North Carolina. To maintain this scenic variety, the Blue Ridge Parkway designers pioneered a comprehensive approach to the conservation of rural landscapes. This Parkway was to be

a destination in its own right, rather than just a connection between two National Parks. Recreational areas were added to the right-of- way to offer motorists opportunities for rest, refreshment, and healthy outdoor exercise. In addition, a chain of exhibits was developed to interpret the traditional culture of the mountaineers into whose land this modern road had come.

The Blue Ridge Parkway became a model for other national parkways. In 1934 preliminary studies were initiated by the National Park Service and Bureau of Public Roads for the Natchez Trace. Another New Deal project, this parkway was to be about the same length as the Blue Ridge Parkway, following the route of the old trace from Nashville, Tennessee, to Natchez, Mississippi. The two parkways were described in the Annual Report of the Director of the National Park Service in 1938 as "pioneers in their respective fields of national recreational and historical motor travel".[58] Edward Zimmer was appointed the Resident Landscape Architect. Land acquisition policies were modeled on those developed on the Blue Ridge, and the legislation establishing the Natchez Trace Parkway as a unit of the National Park System closely paralleled the Blue Ridge Parkway legislation.[59] Construction proceeded more slowly than on the Blue Ridge. Contracts for the first 34 miles in Mississippi were awarded in 1937. By 1941, 103 miles of road were either completed or under construction.[60] Most of the parkway was constructed

between 1947 and 1966, but it remains incomplete today. Because of its lowland location there were fewer construction difficulties than on the Blue Ridge, and there was less need to compromise standards of alignment to fit the topography. Consequently the Natchez Trace is considered by some to be superior to the Blue Ridge Parkway in the grace of its road alignment.[61] There was a widespread enthusiasm for parkways in the 1930s and at least nine proposals were recommended to the National Park Service for consideration, including extensions to the Blue Ridge Parkway. The agency undertook a National Park, Parkway and Recreation Area Study in cooperation with the states in an attempt to develop an integrated approach to the country's growing recreation demands.[62] The enthusiasm was interrupted by the war, but after the war some of the plans were revived. The most ambitious proposal was for a Mississippi River Parkway from the headwaters of the river, in Minnesota, to the Gulf of Mexico. In 1949 Congress authorized a survey. Stanley Abbott headed the National Park Service staff on the team. The difficulties, however, in applying the standards developed on the Blue Ridge Parkway to the construction of an entirely new parkway along the Mississippi, proved insurmountable. The final report completed in 1951 recommended that the parkway be based on the improvement of existing highways, with some interconnecting links of new construction.[63] In 1954 Congress authorized development of the project and in 1964 the

46. Culpin, 1991, p. 63.

47. Ibid., p. 107.

48. L.I. Hewes, "America's Park Highways," Civil Engineering 2, no. 3, (1932):538.

49. Ibid., pp. 538-539.

50. Sarah Georgia Harrison, "The Skyline Drive: A Western Park Road in the East," in Parkways: Past, Present, and Future. Proceedings of the Second Biennial Linear Parks Conference, 1987, (Boone, North Carolina: Appalachian Consortium Press, 1989), p. 42.

51. Ibid., p. 41.

52. H. J. Spelman, "Building Roads in Shenandoah National Park," Civil Engineering 5, no. 8, (1935):482-484.

53. Charles B. Hosmer, Jr., Preservation Comes of Age, 2 vols., (Charlottesville: University Press of Virginia, 1981), p. 513.

54. Unrau and Williss, 1983, p. 145.

55. Thomas H. MacDonald and A.E. Demaray, "Parkways of the Future: A Radio Discussion between Mr. MacDonald, Chief of the United States Bureau of Public Roads and Mr. Demaray, Associate Director of the National Park Service," in Parkways: A Manual of the Revised Requirements, Instructions and Information Relating to National Parkways for Use in the National Park Service, (U.S.D.I., National Park Service, 1938), p. 7.

56. Harley E. Jolley, The Blue Ridge Parkway, (Knoxville: University of Tennessee Press, 1969), p. 54.

57. Stanley W. Abbott, Oral History Interview by S. Herbert Evison, Tape no. 55, Transcript, p. 10.

58. Unrau and Willis, 1983, p. 145.

59. Ibid., p. 150.

60. Ibid., p. 151.

61. William D. Rieley - Principal of Rieley and Associates, Landscape Architects, Interview by Ian J.W. Firth, Charlottesville, Va., 1991.

62. Unrau and Williss, 1983, pp. 152 and 122.