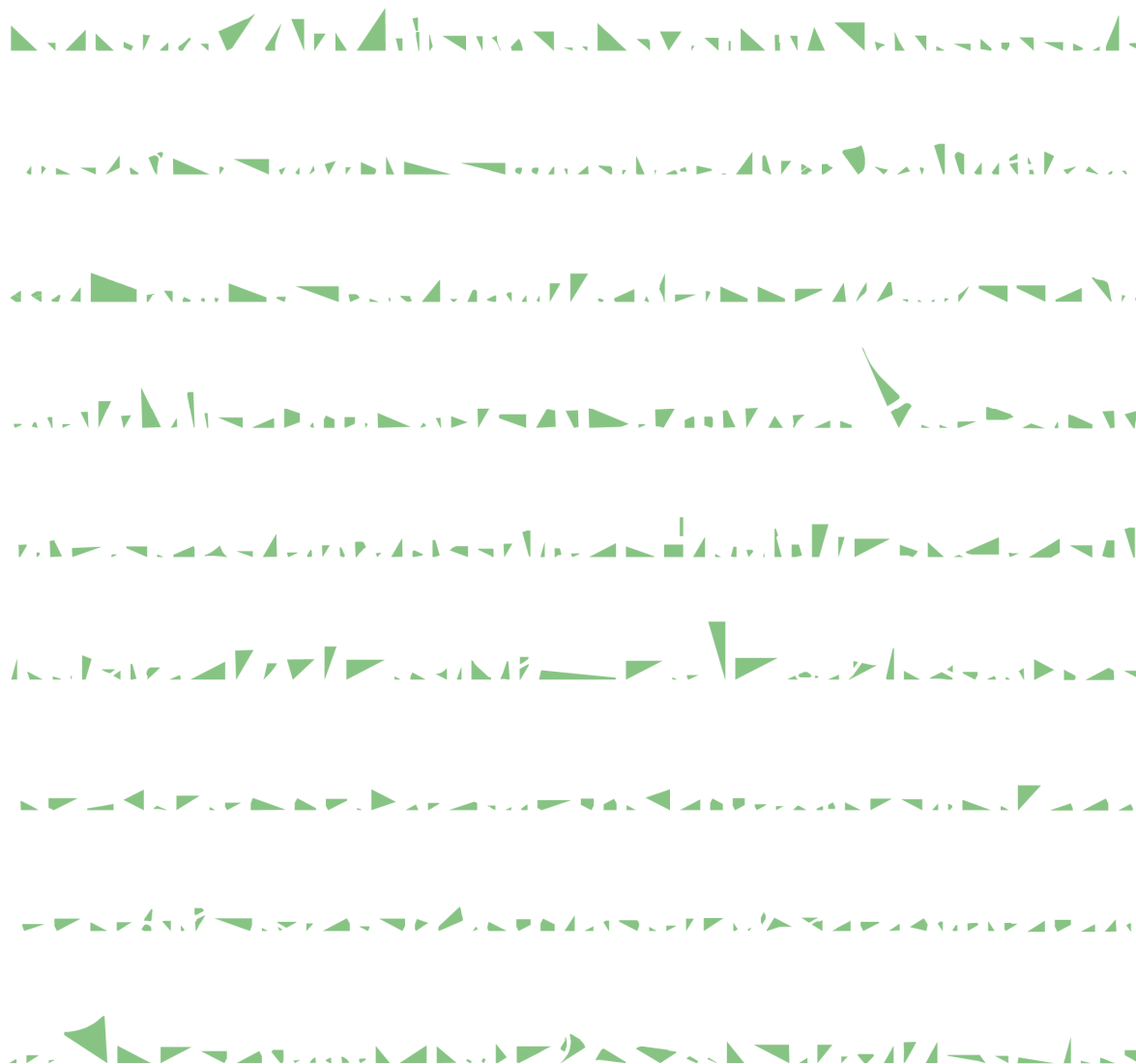


MONUMENTALITY in MICROCOSM
The Triangle parks of Washington, D.C.



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August 2012

"...its prestige of verdure-bordered footways by the sides of the wide streets, has been developed to such an extent that Washington, beyond its business streets, is fast becoming one vast garden, in which the boundary line between city and county is almost entirely wiped out." –Adolph Cluss, Chief Engineer, 1873

INTRODUCTION

Beaux-Arts Era urban planning layered a distinct spatial quality into American cities. These majestic landscapes of carefully framed vistas, axial boulevards, etoiles, and monumental architecture conveyed political potency, social grandeur and cultural primacy of state and national capitals throughout the New World. At the same time, the lucid geometry of these grand master plans systematically produced small, incidental spaces in the urban fabric. Situated at the intersection of roads, these irregular voids contradict the rational clarity of the grandiose city schemes that produced them. Roadway triangles in particular occur routinely and frequently, yet never share the exact same geometric and programmatic profile. At times, they serve as gateways, venues for monuments, or mark district thresholds; more often, their function and importance was overlooked.

As the product of a Beaux-Arts plan re-interpreted and implemented in successive phases, Washington, D.C. hosts innumerable such remnant roadway triangles with footprints as small as five to twenty thousand square feet. Given these sites' tertiary status within the structure of the Baroque city plan, their purpose and utility has always been contested; in both social and infrastructural terms; as a collective feature and as individual sites. Indeed, stewardship of the sites has shifted throughout history. In the present day, they host a range of programs and exhibit a great variety of horticultural treatment; indicative of an iconic presence within the civic consciousness of the Capital.

Using a review of literature, cartography, and primary archival research at institutions throughout Washington, D.C., this study constructs a historical narrative examining the spatial, social, and political dimensions of these remnant pieces of land in the Capital. These are examined both as a whole system and in a series of individual case studies; supported by original geospatial analysis, mapping, and onsite photography.

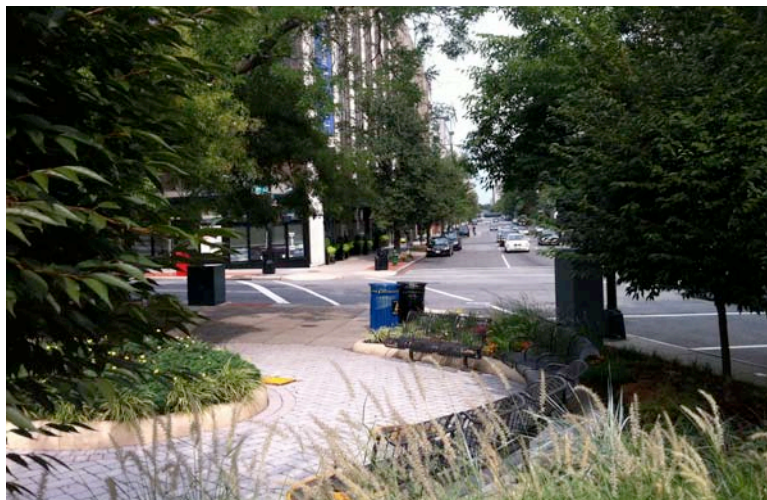


Figure 1: Reservation 140; New Hampshire Avenue, M and 21st Street, NW. Triangle parks function as small pedestrian oases (Abad Ocubillo, 2012)

APPROACH and METHODS

This paper constructs a thorough history of triangle parks in Washington, D.C. within the context of open space planning and development in the District. As the historical City, modern District, and its associated parklands have been copiously documented and investigated; this paper focuses on an element of the urban realm almost completely ignored in contemporary scholarship. Barthold (1993) is the first and only other scholar to recognize the triangle park as a discrete element worthy of investigation. This paper both replicates and expands upon Barthold's methodology; presenting a deeper historical narrative, a broader and more updated description of contemporary conditions, and additional conclusions and recommendations.

The paper begins by placing the plan for Washington, D.C. within historical trends of urban design in Europe and the new world. Using primary and secondary sources, the paper then develops a timeline of historical development specific to what became a triangle park system in Washington, D.C. The timeline describes evolution of the triangles in both social and spatial terms; referring to original accounts, government reports, and newsprint. This paper found that jurisdictional authority of what now comprise triangle park parcels changed often over the last two hundred years. The task of narrating a social history was complicated by the varying vocabulary used in primary sources ('parklets,' 'parking,' 'planted areas,' 'small reservations,' etc) to refer to what this paper calls triangle parks.

The investigation then focuses on geo-spatial development of the triangle parks, drawing upon original maps, plans, and photos. Numerous City Engineers' maps of road pavements over the last one hundred fifty years facilitated focused spatial analysis on what are now triangle parks. The *Reservations Photograph Collection, 1926-1936* held at the Historical Society of Washington, D.C.¹ provided a vital benchmark of physical conditions in the early century. This paper revisits over ninety of the sites documented in the 1920s and 1930s; recording their current condition for comparison to the historic photographs.

Other resources such as GIS datasets were acquired from the D.C. Office of the Chief Technology Officer and D.C. Department of Parks and Recreation Planning and Operations Division. These, together with historic maps and photographs, aided in the creation of a geo-spatial database that helped organize site selection and recording of attributes specific to this study. A representative selection targeted: sites throughout the four quadrants of the District; sites of differing size and geometry; sites exhibiting all different levels of known investment and improvement; and sites associated with the variety of known programs and uses.

DIALECTICS

The narrative of Beaux-Arts city planning is that of overlapping conversations between garden design and urban design; between France and the Americas; and between evolving interpretations of neoclassicism in the Baroque and then the late 19th and early 20th centuries.

¹ The Historical Society of Washington, D.C. catalogue indicates that the photos were "Taken by the National Park Service between 1926 and 1936." However as the 'National Park Service' was not created until 1934, its likely that earlier photographs in the HSW collection were executed by its predecessor agencies – either by the 'Office of Public Buildings & Grounds' (1867-1925) or the 'Office of Public Buildings & Public Parks of the National Capitol' (1925-1933).

The City of Washington, D.C. bears a deep metaphorical and literal connection to the garden. From the earliest dreams of the City's founders to the boosters of the Gilded Age, Washington, D.C. was conceived as a garden its own right (Longstreth 2002). For over two centuries, the real and imagined City of Washington has been depicted in plans, maps, and renderings as both a front yard to the nation's vast wilderness and an arcadian setting for the seat of a new democracy. Thomas Jefferson's own early sketches for a national capital bear a clear resemblance to his estate Monticello – a *ferme ornée* or gentleman's farm – and to the University of Virginia, both of which he designed as integrated compositions of architecture, garden, and wilderness beyond.

Pierre Charles L'Enfant – the originator of the Washington, D.C. plan itself – was profoundly influenced by French garden design of the 17th and 18th centuries. Trained at the Louvre in decorative art during the mid-1700s, L'Enfant had experienced the gardens at the Tuilleries; which at the time were one of the single largest redevelopments of Paris' urban fabric. Royal gardens through the preceding century were executed at a monumental scale – equivalent to whole towns and cities – totally unprecedented in Europe.

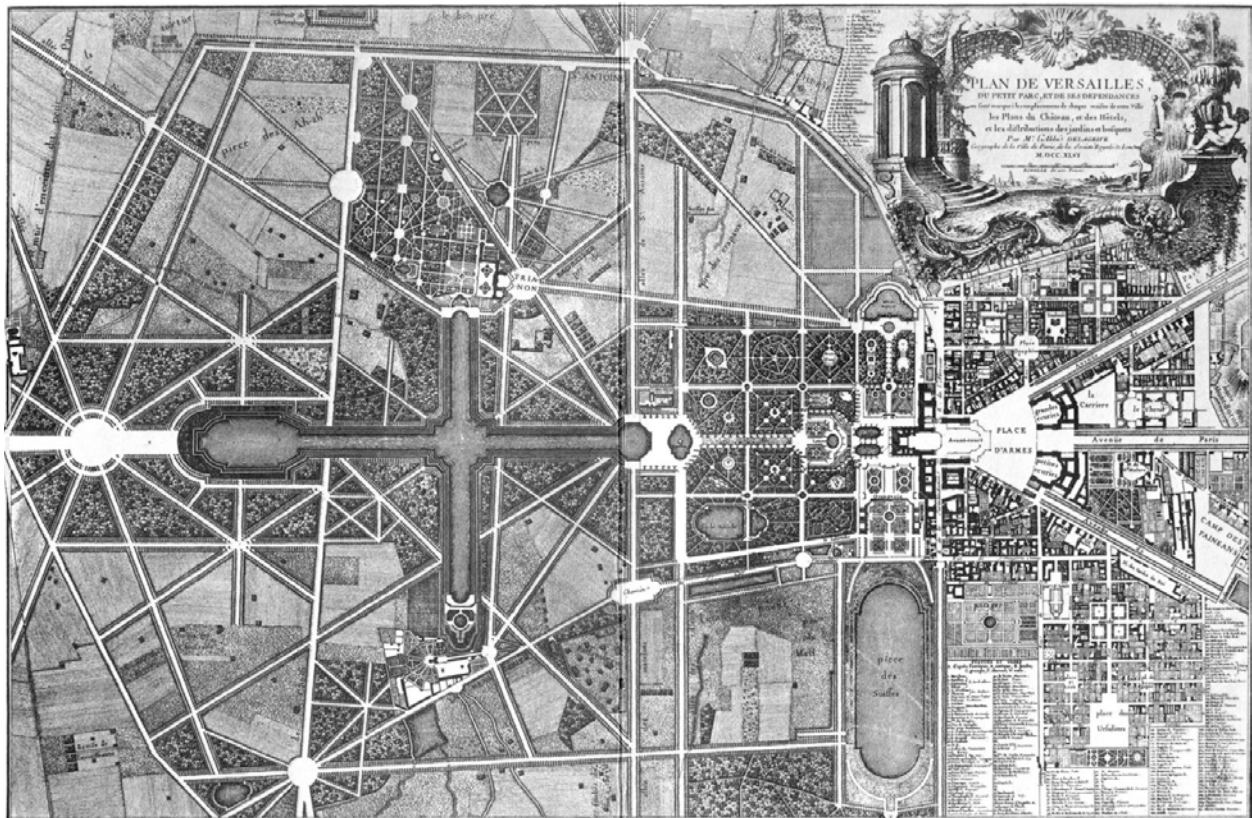


Figure 2: Plan of Versailles, Le Notre c.1661 (Delagrive engraving, 1741)

L'Enfant spent time at Versailles (designed by Le Notre), and would have studied garden designs of Saint-Cloud, Sainte Germain-en-Laye (also by LeNotre), and Marly-le-Roi (Mansart and LeBrun). L'Enfant's fluency in the language of garden design would have included knowledge of previous – if unexecuted – redevelopment plans for London (Wren 1666) and St. Petersburg (Trezzini 1703). L'Enfant would have also known Pierre Patte's composite plan of Paris (1765), which combined a number of proposals for locations and designs of the Place Louis

XV and prototyped an emerging urbanism that connected discrete open spaces physically with straight corridors and visually with the architectural frame of a uniform street wall. In conceiving a new capital city for the United States of America, it would have been natural for L'Enfant to design at an expansive scale, employing the concepts and devices codified in the royal gardens of France. His 1791 plan for Washington, D.C. encompassed an area of 6,000 acres, far surpassing in scope any previous city plan in the Euro-American world.

L'Enfant deployed the vocabulary – and not just the scale – of Baroque gardens in his plan for Washington, D.C. Concepts such as the controlled vista, choreographed procession, surprise, compression and release rendered forms of axial organization, alleés and framed corridors, focal points of architecture and sculpture, evenly distributed open spaces, and the fractal nesting of small intimate spaces within a larger composition (Berg 2007). These forms would become integral components of Beaux-Arts and City Beautiful planning in the coming centuries (Hines 1991). They become clearly legible in Haussman's redevelopment of Paris and Cerda's plan for Barcelona during the mid-19th century. Later, the elements of Baroque garden planning come to bear upon plans for cities in America and elsewhere in the new world: San Francisco and Chicago (Burnham 1904 and 1909); Buenos Aires, Argentina (Thays and others, 1880s-1920s); New Delhi, India (Lutyens 1910); and Canberra, Australia (Griffins 1911).

The sweeping gestures of the 1791 L'Enfant plan firmly situate the City within both physical and metaphorical contexts. The sheer geographic expansiveness of his vision – and its physical manifestation using the argot of Baroque royal gardens – underscored the narrative of political primacy so integral to the identity of a national capital. In superimposing a system of radial avenues on a gridiron of streets, L'Enfant melded a European structure with an American one, rendering a sort of hybrid scheme that expressed common heritage while indicating the newness of the country and its experimental democracy. The 'grand promenade' (known today as the National Mall) extended westward from the Capitol Building to address the vast, unsettled continent; mitigating the transition between the civilized garden of the City and primordial wilderness beyond. It was suggested that the square and circular plazas deployed throughout the City be 'adopted' and developed by migrants from each State; while the broad radial avenues linking those spaces were named after States.



Figure 3: Open Space Allocation in District (Abad Ocubillo, after DC GIS, 2012)

The City extents delineated by L'Enfant encompassed 6,000 acres; over 3,000 of them comprised of Rights-Of-Way for streets and avenues inclusive of their resulting square and circular plazas (Barthold 1993). When considered together, the open space of streets and parks in the 1791/92 plans accounted for over 55% of the City. This relative abundance of open space would have been totally unprecedented for cities existing in that era. Despite monumental construction programs associated with federal buildings, the allocation of land in this fashion – and the relative underdevelopment of the City for almost a whole century – subordinated the City's architectural presence to that of its landscape.

In the present day District of Columbia, comprised of 43,700 acres, over 13,000 make up the open space of streets, plazas, and parks (Abad Ocubillo, after DC GIS, 2012). The latter two kinds of land use comprise over 13% of the District. This creates one of the highest per-capita rates of open space of any city in the United States (Trust for Public Land 2011). Thus the plan for Washington D.C. – and its physical manifestation – can be understood as a garden – in terms of organization, form, and manipulation of the human experience.

1790 – 1867 : THE EARLY DEVELOPMENT of THE CAPITAL CITY and its INCIDENTAL OPEN SPACES

Despite the drafting of a plan for Washington, D.C. in 1791, and official transfer of the federal government there from Philadelphia in 1800, the City itself remained largely underdeveloped and the plan unrealized for nearly a century. Pierre Charles L'Enfant drafted his original plan for Washington, D.C. in the summer of 1791, which was later modified by his then-colleague and surveyor Andrew Ellicott during the winter of 1792 in a plan more widely circulated after L'Enfant's dismissal. The Ellicott plan became the defacto document used for land acquisition for streets and open space, and more closely resembles the present-day alignment of avenues and figural shape of their intersections. The modifications applied by Ellicott have been criticized by Bednar (2006), Miller (2002), and others as having compromised the subtlety and sophistication of L'Enfant's ingenious plan. One of the most notable changes includes the straightening of Pennsylvania Avenue where it had previously jogged in conformity with the topography; further maximizing views and enhancing the sense of surprise in a carefully choreographed procession of arrival at the various open spaces along its length. The work of architect and historian Don Alexander Hawkins (1990) further analyzes L'Enfant's plan with reconstructions of the City's historic topography, revealing the sensitivity with which L'Enfant devised his scheme.

Neither the L'Enfant nor Ellicott plans detailed the geometry of today's triangle park reservations. Indeed, even circles and squares – the primary figural elements associated with open space in the City today – were only suggested by open voids in both plans. It was not until the latter 19th century that the triangle parks themselves formed as discrete figural objects, and only then as residual areas of right-of-way that fell beyond the requisite width of roads and sidewalks prescribed by the Parking Act of 1870 (Barthold 1993). The default condition of Roadway Triangles was that of an unimproved void; and unlike the larger circular and rectangular plazas, the vast majority of Triangles enjoyed no official status or investment in design, treatment, or maintenance until the last quarter of the 19th century.

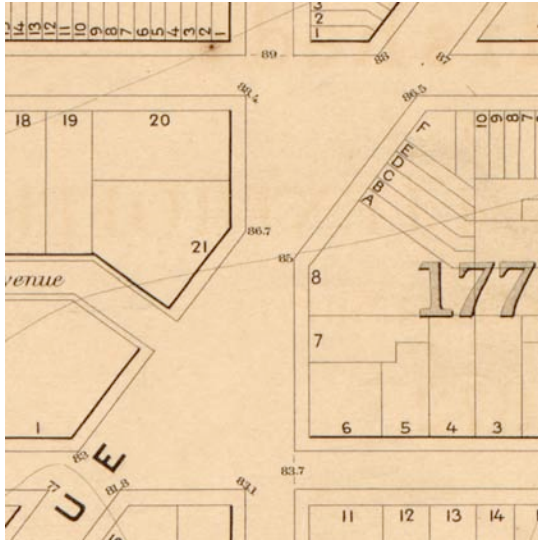


Figure 4: New Hampshire and 17th Streets, NW
(from Bastert & Enthofer, 1872)



Figure 5: Reservations 144 and 145, NW
(Abad Ocubillo, after DC GIS, 2012)

Ownership of D.C. right-of-ways has – since the 1790s – belonged to the federal government, although their management and regulatory jurisdiction changed frequently and at uneven intervals over the last two centuries. Thus the jurisdictional status of the lands that would become triangle parks – and then the triangle parks themselves – was equally if not more complicated. This mixed and uneven oversight underscores the lack of consideration not only for the Triangles’ management and treatment, but their very existence and significance.

During the first seven decades in Washington D.C., authorities with jurisdiction over streets effected almost no investment in infrastructure. Starting with the incorporation of Washington, D.C. as a city in 1802, its management fell to a Presidentially appointed Mayor and elected six-member City Council; in 1820 a new Congressionally-granted charter permitted the election of a Mayor by City residents. Beginning in 1849, the public realm comprised of streets, plazas, and parks or ‘reservations’ was ascribed to the jurisdiction of the Department of the Interior (DOI), a federal agency. During its 17-year charge of public lands, the DOI in the 19th century attempted some – if not fragmented – attempts to improve public spaces in the center city.

During much of the 19th century, livestock roamed throughout the streets and pastured in unenclosed public parks large and small (Washington Post 1881, June 2; Miller 2002). Colonel Ignatius Mudd, then DOI Commissioner in Charge of Public Buildings, attests to the unregulated use of federal reservations by people and animals in an 1850 letter to Congress, noting how they were also used as trash dumps (Mudd 1850). It is likely that only a few triangles, located within the central city, received improvement during the 17-year DOI era. Mudd requests in his 1850 letter for the resources to enclose triangles along Pennsylvania Avenue at what are likely Reservations 28-33 today. Still later, plat maps submitted by Mudd’s successor Benjamin French depict the proposed enclosures at those same reservations along Pennsylvania Avenue. These improvements were likely undertaken due to the sites’ proximity to the White House and Capitol Building, and do not represent the treatment of triangular reservations throughout the City during the DOI period.

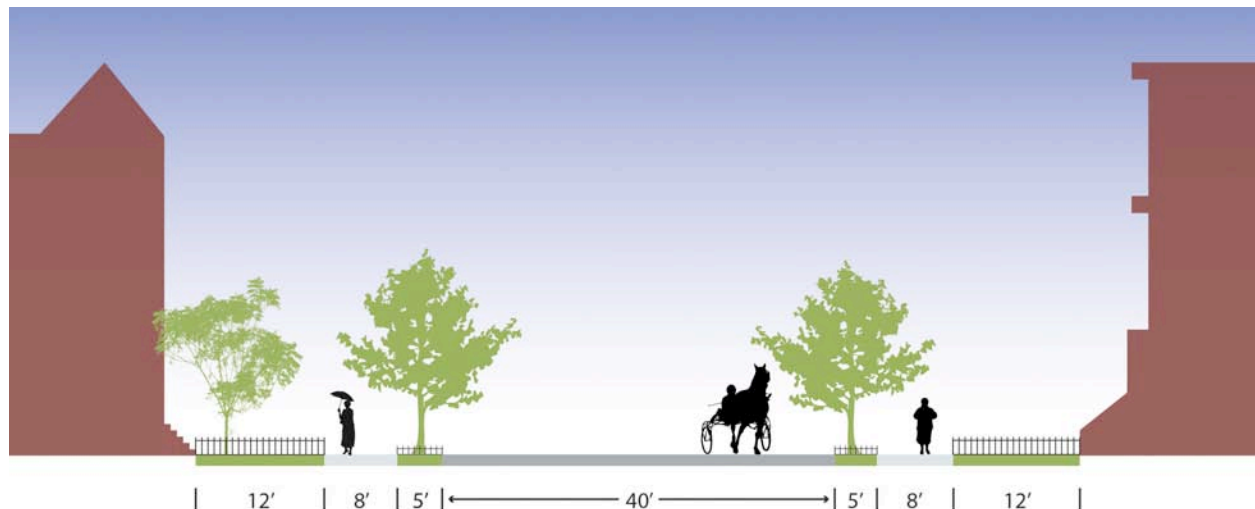


Figure 6: Roadway Section illustrating how the Parking Act of 1870 divided the right-of-way (Abad Ocubillo 2012)

In 1867, jurisdiction of federal lands in Washington, D.C. was transferred from the DOI to the Department of War (DOW), Army Corps of Engineers Office of Public Buildings & Grounds (OPB&G). The Army Corps was the government's most technically competent agency, and its oversight of federal property during the postwar period likely perceived as critical to the transition to domestic peace. In addition to charge of federal land in the Capital, the Army Corps would undertake massive Reconstruction efforts throughout the country ravaged by war. The jurisdictional takeover by the OPB&G of federal open space marked an important moment in the evolution of triangle parks. During the following 66-year Army Corps era, the formal system of triangular roadway reservations would finally emerge.

1867 – 1938 : THE GOLDEN AGE of TRIANGLE PARKS

In 1871, Washington D.C. was granted territorial status by Congress with the Organic Act, which permitted self-government of the City and the formation of a Board of Public Works. The Board of Public Works was appointed by the President, and was charged with the modernization of the City. This new and much-needed local agency could attend to urgent infrastructure issues that became more acute during the post-bellum era, characterized by enormous stresses of new migration and a renewed fortification of Washington's status as a federal capital (Hoagland 1989). The Board of Public Works assumed jurisdiction of right-of-way and for the first time the city fabric was subject to coordinated and comprehensive investments in water, sewer, and gas infrastructure. A systematic program of street paving began, which finally delineated triangle parks as a discrete features in the right-of-way. During the short 1871-1874 period under the Department of Public Works, more than two of three hundred miles of city streets were paved, more than most American cities (Miller 2002). A study of maps from the L'Enfant plan to the present reveals this 1871-1874 period of Territorial Government as the prime era of triangle park formation from the large irregular voids of road intersections.



Figure 7: Reservation 87, NE



Figure 8: Reservation 234, SE



Figure 9: Reservation 277, NW

Boundary stones and post-and-chain fences were placed by the OPB&G to demarcate triangle parks (Abad Ocubillo 2012)

Concurrent with and extending beyond the three-year period of Territorial Government, the Office of Public Buildings & Grounds (Army Corps of Engineers, DOW) continued to identify and improve public parks or ‘reservations.’ Between 1871 and 1933, the OPB&G systematically catalogued public reservations, including the new triangular figures emerging between the carriageways of newly paved roads (Grant 1932; Lessof 2006). The 1884 annual report produced by the OPB&G identified 246 reservations (Rockwell & Forsyth 1884). Their first official survey of federally owned parcels – conducted in 1894 and confirmed in 1898 by an Act of Congress as the official reservation map – identified 301 reservations within the historic boundary delineated by L’Enfant (Wilson & Stewart 1894). Over a century later in the present day, the 1894 map (Figure 10) still serves as the nucleus of a system for numeric identification of the District’s reservations which now number over 700 (after DC GIS, 2012).

After the dissolution of Territorial Government in 1874, the responsibility for streets and avenues defaulted to a Board of Commissioners appointed by the President.² Of the three post-Territorial commissioners, one was selected from the Army Corps of Engineers. In 1878, Congress passed the DC Organic Act, making this three-member Board of Commissioners the District’s permanent form of government³ and specifying that an active duty Army Corps Engineer serve as Engineer Commissioner (Myers 1973; Scott 2005). For over a half century to follow, this Commission continued the investment and maintenance programs of the preceding Board of Public Works, overseeing the District’s expanding street system and subdivision of land (Barthold 1993; Lessof 2006). In 1898, jurisdiction over all reservations was consolidated within the Corps; whereas before it had only been responsible for local parks and not reservations of national importance such as the Mall, President’s Park and Capitol Hill Grounds (Grant 1932; National Park Service 2003).

If the early 3-year period of Territorial Government was the prime era of triangle park formation and delineation, the 66-year Army Corps period can be considered the golden age of triangle park design and treatment. The active duty Army Corps Engineer Commissioner, through the Office of Public Buildings & Grounds, would preside over the longest sustained period of planning and material investment in triangle parks. Concurrent with the systematic

² As in the period between 1790-1800 when three Commissioners were charged with the surveying and acquisition of lands for the Capitol.

³ The DC Organic Act of 1878 also eliminated Washington County, extending the boundaries of the City to be contiguous with those of the District of Columbia

cataloging (surveying, identification, and numbering) of triangle parks described previously, the OPB&G graded, sodded, and planted hundreds of reservations throughout the District, including Triangles (HABS No. DC-698; Washington Post 1879; Washington Post 1881, Aug 2). To discourage garbage dumping and livestock pasturing, triangles were enclosed with iron post-and-chain fences (HABS No. DC-627), many of which still remain in situ decades after their installation (Figures 8, 11, and 12). Larger triangular parcels received interior pathways, seating areas and benches where previously they did little to serve the active pedestrian life of city streets (Washington Post 1879).

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Figure 11: Post and Chain, Reservation 234, 1927
(Office of Public Buildings & Grounds)
North Carolina Avenue, A Street and 9th Street, SE



Figure 12: Post and Chain, Reservation 234, 2012
(Abad Ocubillo)

1938 – 2012 : HOME RULE and FRAGMENTATION

Much of the mid-twentieth century is characterized by increasing tensions between the federal government and District residents agitating for greater autonomy or ‘home rule.’ These conflicts affected the ways in which public open space was managed and programmed. In particular, the 1940s marked the beginning of relative decline for the management of triangle parks, as a system and as individual sites. The system’s integrity became increasingly compromised as the jurisdictional oversight of reservations slowly transferred from the National Park Service (an agency fashioned from the Office of Public Buildings & Grounds) to an ever-widening array of agencies. This was facilitated by legislation enacted by Congress in 1932 which permitted the agency in charge of public reservations (then the Office of Public Buildings & Public Parks within the Office of the President of the United States) to transfer jurisdiction of property to the D.C. government (Devlin 1933; US Government Accountability Office 2005; Heine 1953/2003). This bypassed the traditional cumbersome transfer process which required Congressional approval for each property in question.

In 1948, over 300 triangle reservations were transferred from the National Park Service to the D.C. Government (after Historical Society of Washington, 2012). It is likely that as triangles formed part of the right-of-ways originally acquired in the late 18th century, the 1948 transfers were made to facilitate the management and expansion of roadways for automobiles. Numerous reconfigurations to right-of-ways date to this period, for example roadway widenings and tunnel underpasses (Barthold 1993; Bednar 2006; Colyer 1987). In the decades since, many triangle reservations have been sliced by turning lanes or ‘slips’ (Figures 13 and 25). In many cases, shrunken triangles lost their vegetative treatment and were paved over entirely (Colyer 1987). This is the case at Reservations 68A and 69A at Burke and Gompers Parks NW, which in the present day are two brick traffic islands but were planted with trees in 1921 (HABS No. DC-675).

Other Early jurisdictional transfers occurred as a newly formed D.C. Recreation Board began programs for D.C. residents in local parks, an arrangement formalized in 1949 with Memorandum of Understanding between the NPS and the Recreation Board (US GAO 2005).



Figure 13: Reservation 22 (Massachusetts Avenue and M Street, NW) has been cut laterally in two places to facilitate automobile traffic (Abad Ocubillo, 2012)



Figure 14: Reservation 85, (OPB&G, 1927)

Tree loss at Reservation 85, Constitution Avenue and 8th Street, NE



Figure 15: Reservation 85 (Abad Ocubillo, 2012)

Still later in 1968, all recreational facilities were transferred to the D.C. Department of Recreation (the successor agency to the Recreation Board) while jurisdiction of local parklands was transferred to the D.C. Department of Public Works (Council of the District of Columbia 1989; Gutheim and Lee 2006). The 1960s were also marked by the abolition of the three-Commissioner D.C. Government, which was replaced with a Presidentially-appointed Mayor-commissioner and City Council (Council of the District of Columbia 2012). Soon afterward in 1973, the Home Rule Act permitted election of the Mayor and City Council by D.C. residents.

In 1988, the City Council created the Department of Recreation and Parks, merging the oversight of recreational facilities from the former Department of Recreation with jurisdiction of local parklands from the Department of Public Works (Council of the District of Columbia 1989). Despite this consolidation of facilities and lands with the DRP, the last quarter of the 20th century saw continual fragmentation of jurisdiction for triangle parks between a variety of local, regional, and federal agencies. At present, the panoply of jurisdictions include (in order of acreage held) the National Park Service, the D.C. Department of Parks and Recreation, the D.C. Department of Transportation, the D.C. Public Schools, the Washington Metropolitan Area Transit Authority, and various private entities (Faulkner 2012).

FINDINGS: CONTEMPORARY CONDITIONS of TRIANGLE PARKS

The Baroque urban plan conceived by Pierre Charles L'Enfant (and later modified by Andrew Ellicott) created a great variety of spatial situations and conditions. Consequently, triangle parks – formed by remnant spaces in that plan – vary greatly in size, geometry, and physical relationship to the surrounding streets and blocks. Over the centuries, a diversity of uses and meanings became established at these sites. Differing levels of material investment at triangles parks reflected and reinforced patterns of uneven development throughout the District. This paper identifies two sets of triangle park typologies: spatial and programmatic. These two frameworks of categorization are discussed here.

Spatial Typologies

This paper identifies spatial typologies of triangle parks occurring throughout the District. The first type of triangle park is the 'Square-Triangle,' located at sites originally identified by L'Enfant and/or Ellicott as rectilinear open spaces integrated with the public right-of-way. Over time, these squares or plazas would be reconfigured to accommodate the needs of traffic and circulation, rendering pairs or groups of triangular parks (HABS No. DC-685; HABS No. DC-706). This is the case at Seward Square (Figures 18-19) and Eastern Market Square, SE; Scott Circle NW; as well as a number of locations along Pennsylvania Avenue, NW (Figures 16 and 18).

The next most prevalent spatial typologies are the 'End Point' varieties. The 'Attached End Point' reservations occur at the ends of triangular city blocks; bounded on its two long sides by streets, with its shortest side sharing a boundary with a private parcel on the interior of the triangular block. These 'End Point' reservations occur at all 'etoile' or 'star' intersections; for example at Washington, Dupont, Logan, and Thomas Circles, NW (Figure 21). 'End Point' reservations also form at 'patte d'oie' or hemicycle intersections. These can be found at Union Station and Mount Vernon Square (Figure 22), where several streets converge on a single piece of focal architecture.

The 'Detached End Point' is formed when the most acute end of a triangular reservation is separated by a roadway. The 'Detached' portion of the park often forms a small floating traffic island and pedestrian refuge that connects crosswalks. This is the case at Reservations 68-69 (Figure 23; Massachusetts Avenue and 11th Street, NW) and Reservation 72-74 (Figures 46-47; Massachusetts Avenue and 5th Street, NW).

The next group of triangle park spatial typologies are the 'Communicating' varieties. These occur when road intersections create pairs of reservations that, in plan view, mirror one another. 'Communicating' typologies further break down into 'Symmetrical' and 'Asymmetrical' compositions. The 'Square-Triangle' typology, discussed previously, often creates 'Symmetrical Communicating' groups (Figures 17-18; 20; and 23). Other situations in the street plan of Washington, D.C. create numerous 'Symmetrical Communicating' groups. The NPS signage posted at Reservation 72 refers to this grouping of reservations as a "Bowtie" park for the way the streets split and stagger the parks into a distinct figural arrangement (Figures 23-24).

'Asymmetrical Communicating' triangle parks occur more frequently than their symmetrical counterparts. Though the L'Enfant plan endeavored to organize the City with rational symmetry, its execution rendered a great diversity of geometrical permutations of

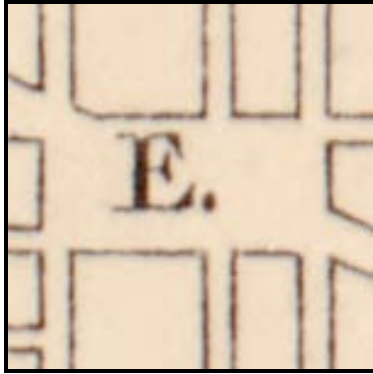


Figure 16: 1791

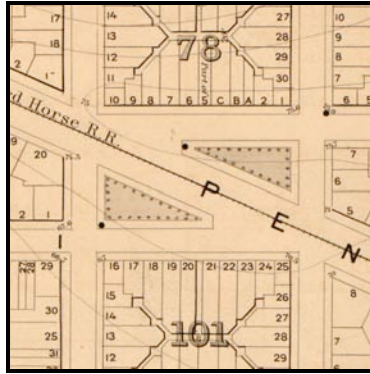


Figure 17: 1872



Figure 18: 2012

Reservations 28-29, Pennsylvania Avenue at 20th and 21st Streets, NW. These two triangle parks were formed from a single rectilinear open space first delineated by L'Enfant in 1791 simply as "E." In the 1860s, the Washington and Georgetown Streetcar Company installed tracks down the centerline of Pennsylvania Avenue. In the 1870s, squares along the avenue were formally divided into two distinct triangular halves and were treated extensively with sidewalks, plantings, and post-and-chain enclosures, evident in this 1872 excerpt from a plat map by Bastert and Enthoffer.

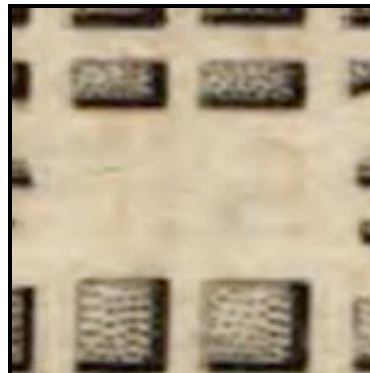


Figure 19: 1792



Figure 20: Seward Square, 2012

This grouping of reservations is located at the intersection of Pennsylvania Avenue and North Carolina Avenue. An open space originally labeled by L'Enfant in 1791 as "No. 14," it's shown here as a rectangular void in Ellicott's 1792 plan. By the 1880s, the square was comprised of six triangles; in 1903 the median was added down Pennsylvania Avenue; in 1963, the removal of 5th Street resulted in a consolidation rendering four triangles (Bednar 2006; HABS No. DC-685; HABS No. DC-706).



Figure 21: Thomas Circle, NW



Figure 22: Mount Vernon Square, NW



Figure 23: Gompers-Burke, NW

The first two locations typify how 'End Point' reservations form around circles and squares which are the focal points of intersecting avenues. Gompers-Burke Park, NW typifies the 'Detached End Point' condition; where 11th Street, NW splits each reservation into two parts.

triangle parks at intersections. Excellent examples of 'Asymmetrical Communicating' triangle parks occur at Reservations 268-269 (Tennessee Avenue and 14th Street, NE); Reservations 92-92 (Massachusetts Avenue and C Street, SE); and Reservations 144-145 (Figures 4 and 5; New Hampshire and 17th Streets, NW).



*Figure 24: "Bowtie"
Reservations 173-174
New York Avenue and 11th Street, NW*



*Figure 25: "Bowtie" with slips
Reservations 168-169
Vermont Avenue and S Street, NW*

'Re-engineered geometry' comprises the final geo-spatial typology identified by this paper. These reservations were significantly reconfigured by the requirements of automobile circulation from the mid-twentieth century onwards. Clearly legible examples of this can be found at Reservation 22, NW (Figure 12) and Reservations 168-169, NW (Figure 25). Other triangle reservations were entirely lost to highway construction during the mid-20th century. These include Reservations 96-97 NW; 222-223 SW; and 123, 125, and 127 SE.

Urban redevelopment (renewal) projects during mid-twentieth century also resulted in the deletion of triangle parks. Housing projects absorbed and erased Reservations 215, 217, and 222-223 SW (Figures 26 and 27). Reservation 188-189, NW became part of the United States Department of Labor building. Reservation 203, NE became part of the Supreme Court Grounds. The relocation of passenger rail facilities for the development of Union Station caused the destruction of Reservations 79-81 and 224-228 NE.



*Figure 26: Reservation 22 (OPB&G, 1927)
G and Ist Streets, SW. Massive redevelopment projects in the southwest radically changed the context of former triangle parks.*



Figure 27: Reservation 22 (Abad Ocubillo 2012)

Programmatic Typologies

Triangle parks interact with the social fabric of Washington, D.C. in surprising and varied ways. Across the City and over centuries, these small public parcels figure into the expression of community identity; concepts of stewardship and beautification; and even commercial and business operations. Furthermore, the precedent set by the Parking Act of 1870 of granting private landowners responsibility for improving and maintaining adjacent open space also creates variable conditions of access and aesthetic value for triangle parks.

The introduction to this paper established that Washington, D.C. is a monument unto itself. Its built fabric is comprised of innumerable monuments commemorating individuals, events, or ideas of international, national, and even local significance. Amongst the grand groupings of government buildings, parks, plazas, fountains, and statuary, triangle parks form an integral yet overlooked component in the City's system of monuments. While an exact count of memorial triangles was not within the scope of this research project, this paper nonetheless notes types of programs occurring at these sites.

As early as the 1860s, triangle parks were identified as sites for commemorative statues and other objects. The statues of Longfellow (Figure 28) and Ghandi (Figure 29) are excellent examples of this. Other times, the triangle park itself was designated a memorial; such as the Dean Wilhelm Memorial Park (Reservation 116; Virginia Avenue, D and 6th Streets, SW), Edward R. Murrow Park (Reservation 31; Pennsylvania Avenue and H Street, NW), Lola Beaver Memorial Park (Figure 30); and Dennis Dollinger Memorial Park (Figure 31). These designations express one type of community identity or another – be they geographic or political, cultural or ethnic.

Triangle parks have become natural sites for public art and sculpture (Figures 32-33). Oftentimes, these art pieces bear special significance to the social history of the neighborhood (versus national and international communities). Triangle parks also mark district thresholds, and many contain gateway structures announcing the names of neighborhoods. This is the case in Woodbridge (Reservation 313A, NE); Adams Morgan (Figures 33 and 34;; and LeDroit Park (Figure 35, NW).



*Figure 28: Longfellow, Reservation 150
Connecticut Avenue, M and 18th Streets, NW*



*Figure 29 : Ghandi, Reservation 58
Massachusetts Avenue, Q and 21st Streets, NW*



Figure 30: Lola Beaver Memorial Park, Reservation 86
Massachusetts Avenue, A and 9th Streets, NE



Figure 31: Dennis Dollinger Memorial Park,
Reservation 256
Georgia and Kentucky Avenues at 16 Street, SE



Figure 32: "Here I Stand" by Allen Uzikee Nelson
Reservation 317
Kansas and Georgia Avenues, NW



Figure 33: "Unity in Diversity"
Reservation 306D
Columbia Road and Euclid Street, NW



Figure 34: Adams Morgan Heritage Trail Sign,
Reservation 306C, NW
Calvert Street and Adams Mill Road, NW



Figure 34: LeDroit Park Gateway
Florida and T Street, NW

The previous section defined the 'Attached End-Point' triangle park typology – that which adjoins private property on one side. This results in a variety of edge conditions between public and private parcels; as well as varied stewardship arrangements of the public space by adjoining private residents. This investigation found evidence of how residents informally program spaces by introducing play equipment, seating, and plantings (Figures 36 and 37). Other times, 'Attached End-Point' triangles became defacto extensions of front and side yards. In these situations, the adjoining property owner often limits access by enclosing the triangular reservation with fencing or plantings. This privatization was observed at Reservations 138 and 139 (New Hampshire Avenue and L Street, NW) and at Logan Circle, NW (Figures 164 and 165). This can be traced through photo documentation all the way to the 1920s.



Figure 36: Swings at Reservation 87
Massachusetts Avenue, A and 10th Streets, NE



Figure 37: "Steve and Phil's Garden"
Reservation 62, Dupont Circle, NW



Figure 38: Reservation 164 (OPB&G 1927)
Reservation 164 (just north of Logan Circle NW) typifies many 'Attached End-Point' triangle parks which are enclosed and maintained by adjacent property owners. This historic practice can be traced to the Parking Act of 1870, and is also recorded in photographs from the early 20th century.



Figure 39: Reservation 164 (Abad Ocubillo 2012)

Gas stations and automobile service establishments form another significant private land use which adjoins 'Attached End-Point' triangle parks. These are especially evident along Florida Avenue (previously called "Boundary Street" as it marks the City's historical northern edge). Photographs from throughout the 20th century show numerous triangular reservations adjoining gas stations and car lots (Figures 40 and 41). Revisiting these sites in the summer of 2012 revealed that only a few are well-maintained by the adjacent gas stations.

Many triangle park reservations are managed by community groups in partnership with the City. The Department of Parks and Recreation currently manages over two hundred triangular reservations (Faulkner 2012), and many of those through Park Partner Agreements. For example, the S Street Dog Park (Figure 42) is managed by the group Circle Dogs. The Department of Parks and Recreation oversees at least 13 community gardens in partnership with community groups. Community gardens can be found at a triangle parks at Montana Avenue and 17th Street, NE; and adjoining the national mall at Maryland and Independence Avenues and 6th Street, SW (Figure 43). Thus triangle parks are shared territories, each with its own unique circumstances of oversight and jurisdiction, programming and maintenance, social and political significance.



Figure 40: Reservation 274 (OPB&G, 1929)
Florida Avenue and T Street, NW



Figure 41: Reservation 274 (Abad Ocubillo 2012)



Figure 42: S Street Dog Park, Reservation 144
New Hampshire Avenue and 17th Street, NW



Figure 43: Community Garden
Maryland Avenue and 6th Street, SW

CONCLUSIONS

This paper draws three major conclusions regarding triangle parks in present-day Washington, D.C. Firstly, historical patterns of uneven investment in triangle parks persist to this day; thus diluting the parks' collective identity as a discrete system of open spaces within the District's larger parks network. Secondly, triangle parks comprise an integral part of the social fabric of Washington, D.C. Thus their different material qualities, uses, and programs represent the diverse local histories, values, and priorities of their respective neighborhoods. In more recent decades, the ecological and environmental functions of triangle parks has also come into consideration, underscoring exciting potential for tying them into storm water infrastructure. Finally, this paper echoes Barthold's 1993 conclusion that triangle parks form an important component of the historic city. However, this paper also documented extreme fragmentation of jurisdiction and investment in triangle parks. Thus the author further contends that a comprehensive strategy for examining, planning for, and managing the triangle parks – both as a discrete system of places and as individual sites – is required to address issues of historic preservation and social equity in the present day.

Inconsistent / Uneven Investment

This paper found that the treatment and programming of Triangle parks has not changed significantly since the 1870s, beginning with the 1867- 1933 period of oversight primarily associated with the Army Corps of Engineers. Fieldwork undertaken by this study revealed that the material conditions and human use patterns at many sites resembled those documented in the 1920s and 1930s by the Army Corps. The majority of triangle sites examined by this paper retain the same hardscape configurations legible in historic photographs. Materials such as brick, aggregate concrete, and cast iron have been replaced in-kind. In a number of cases, the original post-and-chain enclosures – installed by the Army Corps Office of Public Buildings & Grounds – still remain in situ (Figures 8, 11 and 12).

Although the Army Corps of Engineers delineated and catalogued Triangular reservations throughout the District (Figure 10), not all Parks received equal degrees of treatment. These historical patterns of uneven investment are still clearly legible today. This paper documented how Triangular reservations in the central northwest quadrant of the City received earlier, more sustained investment than reservations in all other areas (Washington Post 1881 March; Washington Post 1881 August). Since the northwestern sites were most proximate to the White House and Capitol Building, they were more likely to become designated as venues for monuments and memorials, in turn ensuring a certain degree of maintenance and attention over succeeding decades. Furthermore, the placement of monuments and memorials in triangle reservations imbued them with sacrosanct status that abetted their sites' preservation; whereas triangle reservations in other parts of the City were systematically reconfigured or eliminated by evolving traffic engineering standards, highway infrastructure and urban renewal projects (Figures 22, 25 - 27).

Industrial land uses in the southern quadrants of the City – associated with the port and naval yard – created markedly different residential settlement patterns. The southwest quadrant in particular did not enjoy the same investment in public space as elsewhere in the District, where steady middle-class gentrification wrought pleasant gardens and parks. Indeed, many of



*Figure 44: Reservation 245 (OPB&G 1927)
Potomac Avenue, Q and South Capitol Streets, SW*



Figure 45: Reservation 245 (Abad Ocubillo 2012)



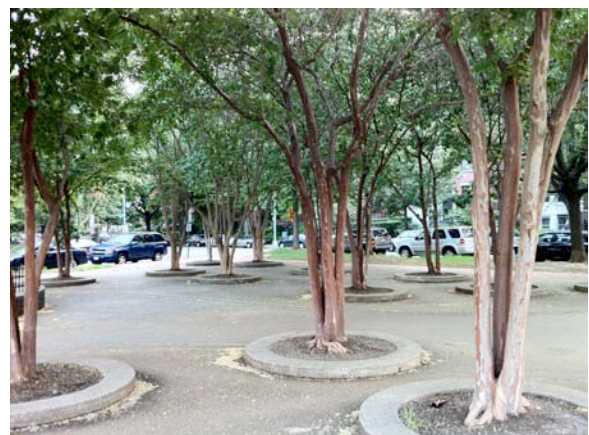
*Figure 46: Reservation 72 (2012)
Massachusetts Avenue and 6th Street, NW*



*Figure 47: Reservation 74 (2012)
Massachusetts Avenue and 5th Street, NW*



*Figure 48: Reservation 154 (Ronald Comedy 1970)
Logan Circle, NW*



*Figure 49: Reservation 163 (Abad Ocubillo 2012)
Logan Circle, NW*

the triangular reservations delineated by the Office of Public Buildings & Grounds in the late 1800s (Figure 10) are, in the southwest quadrant, now nonexistent or exist in the same state of abandonment documented by the OPB&G in the 1920s and 1930s (Figures 44 and 45). Other sites in the far northwest and northeast – at suburban communities outside the historic city, and settled later in the 20th century – are also typified by a sort of benign neglect. Site visits to the neighborhoods of Petworth (NW) and Woodridge (NE) confirmed that triangle parks there appear exactly as they did in photographs from the 1920s and 30s.

This investigation found that amongst pairs of ‘Communicating’ triangle parks, built infrastructure at each site rarely match one another. While numerous primary and secondary sources describe how pairs of ‘Communicating’ triangle parks – especially along Pennsylvania and Massachusetts Avenues – were treated similarly and at the same time (Barthold 1993; Bednar 2006; Grant 1932; Miller 2002; Washington Post 1881, Jun 2; Washington Post 1881, Aug 2), present-day conditions are quite different. For example, Reservations 72 and 74 (Massachusetts Avenue and 5th Street, NW) were both enclosed, paved, and planted during the late 19th century by the Office of Public Buildings & Grounds (HABS No. DC-703, 1993). However, we can see how in the present day, the state of built features differ significantly at each site (Figures 46 and 47). The degraded infrastructure at Reservation 72 is undergoing major restoration work, led by the National Park Service in partnership with several local interest groups. Meanwhile, Reservation 74 on the opposite side of Massachusetts Avenue retains its 19th-century configuration of pathways, edged with the quarter-round concrete coping described in primary and secondary descriptions of hardscape from that period. Thus individual sites comprising ‘Communicating’ triangle park groups have – and continue to be – treated and improved independently of one another, despite their shared spatial and geographic histories.

In constructing a historical timeline of development for the triangle parks as a system, several sites exemplified how improvement often targeted a few parcels to the exclusion of all others. For example, the program of city beautification initiated by Ladybird Johnson in 1968 rendered marked changes to Reservations 154 and 163, NW. These make up two of the four ‘Attached End-Point’ triangle parks located off Logan Circle. The midcentury updates at Reservations 154 and 163 contrast with the 19th- and early 20th-century trappings of Logan Circle itself. A photograph from 1970 by Ronald Comedy (Figure 48) shows the modernist arrangement of container plants and treewells in the foreground, while the equestrian statue of General Logan atop its beaux-arts pedestal marks the center of the circle beyond. A recent site visit to Logan Circle revealed Ladybird-era redesigns as very much intact (Figure 49).

Abundance vs. Reclamation

The relative abundance and variety of open space in the District of Columbia – of which triangle parks are one type – distinguishes Washington from other cities where park facilities are more sparse. The author thus contends that in Washington, there is much less pressure than in other cities to reclaim or convert other types of land use to open space or recreation. For example, cities whose per-capita open space is far less generous – such as New York, San Francisco, and Los Angeles – are experimenting with various types of road closures to create pedestrian-accessible open space.

Roadway triangles are perhaps the most basic and pervasive component of an extensive open-space infrastructure in Washington, D.C. As components of the right-of-way, they mark the daily pedestrian’s procession through the city; offering variety, respite, and easy wayfinding.

Their relative abundance leaves them open to all sorts of adaptation and re-purposing. These programs include dog parks, community gardens, and venues for new public art. In addition to those important human factors, this paper contends that triangle parks contribute significantly to environmental and ecological function as well. Triangle parks form nodes within the network of vegetative cover provided by street trees and parkway plantings. Recently, their ecological function has been expanded with several storm water management experiments observed Reservations 151, 317, 317B, and 317A, NW. The sign at Reservation 151, NW reads:

This traffic island was converted into a rain garden in 2012 and captures polluted storm water that runs off the surrounding roads. The soil and plants retain and filter the water, protecting the Potomac River. This garden demonstrates how small changes in the urban environment can contribute to the natural sustainability of the region. This project is made possible through a partnership between the District Department of the Environment and the Golden Triangle Business Improvement District with funding from the U.S. Environmental Protection Agency.



Figure 50: Reservation 151, NW
ADDRESS



Figure 51: Reservation 317B, NW

Opportunity for Integration

Finally, the author observed how jurisdiction and oversight of triangle reservations is and continues to become more fragmented. Their collective management has only devolved since the 1870-1933 Army Corps-associated era. Throughout the latter half of the 20th century, jurisdiction of triangle parks was re-assigned to various local and regional agencies. This fragmentation further exacerbates existing patterns of uneven investment in triangle parks throughout the District.

This paper asserts that a unified vision for triangle parks as a system is required to ensure not only their preservation as significant elements of the District's urban fabric, but also consistent improvement across the entire City. Programs should seek to re-invest in sites in degraded condition, bringing their material qualities up to par with those of highly-maintained triangle parks of the central northwest. Furthermore, programs should actively identify community partners and establish stewardship agreements across all neighborhoods.

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IMAGE CREDITS

Cover Image: D.C. Triangle Parks. Robin Abad Ocubillo, 2012*

1. Reservation 140; New Hampshire Avenue, M and 21st Street, NW. Robin Abad Ocubillo, 2012
2. Plan of Versailles, designed by Andre le Notre c.1661. Engraving by Delagrive, 1741.
3. Open Space Allocation in the District of Columbia. Robin Abad Ocubillo, 2012*
4. Intersection of New Hampshire Avenue and 17th Streets, NW. From "Map of the city of Washington : showing the sub-divisions, grades and the general configuration of the ground in equidistances from 5 to 5 feet altitude," Bastert and Enthofer, 1872
5. Reservations 144 and 145 (Intersection of New Hampshire Avenue and 17th Streets), NW. Robin Abad Ocubillo, 2012*
6. Roadway Section illustrating how the Parking Act of 1870 divided the right-of-way. Robin Abad Ocubillo, 2012 after Hoagland, 1989.
7. Granite Boundary Stone, Reservation 87, NE. Robin Abad Ocubillo, 2012
8. Cast-iron post and chain (detail), Reservation 234. Robin Abad Ocubillo, 2012
9. Granite Boundary Stone, Reservation 277, NW. Robin Abad Ocubillo, 2012
10. "Map of the City of Washington Showing the Public Reservations Under Control of Office of Public Buildings and Grounds" John Stewart, 1894
11. Post and Chain, Reservation 234. Office of Public Buildings & Grounds, 1927[†]
12. Post and Chain, Reservation 234. Robin Abad Ocubillo, 2012
13. Reservation 22. Robin Abad Ocubillo, 2012
14. Reservation 85, 1927. Office of Public Buildings and Grounds, 1927[†]
15. Reservation 85, 2012. Robin Abad Ocubillo, 2012
16. Square "E", 1791. From "Plan of the City, intended for the Permanent Seat of the Government of the United Sates" By Pierre Charles L'Enfant, 1791. LOC 91684074
17. Reservations 28-29, 1871. From "Map of the city of Washington : showing the sub-divisions, grades and the general configuration of the ground in equidistances from 5 to 5 feet altitude," Bastert and Enthofer, 1872
18. Reservations 28-29, 2012. Robin Abad Ocubillo, 2012*
19. Seward Square, 1792. From "1792 Plan of the city of Washington in the territory of Columbia : ceded by the states of Virginia and Maryland to the United States of America, and by them established as the seat of their government, after the year MDCCC / engrav'd by Sam'l Hill, Boston" Design by Andrew Ellicott, 1792. Library of Congress Geography and Map Division Washington, D.C. Call Number G3850 1792 .E41 Vault
20. Seward Square, 2012. Robin Abad Ocubillo, 2012*
21. Thomas Circle, NW. Robin Abad Ocubillo, 2012*
22. Mount Vernon Square, NW. Robin Abad Ocubillo, 2012*
23. Gompers-Burke, NW. Robin Abad Ocubillo, 2012*
24. "Bowtie" Reservations 172-174. Robin Abad Ocubillo, 2012*
25. "Bowtie" with slips, Reservations 168-169. Robin Abad Ocubillo, 2012*
26. Reservation 222, 1927. Office of Public Buildings & Grounds. Robin Abad Ocubillo, 2012*
27. Reservation 222, 2012. Robin Abad Ocubillo, 2012

28. Longfellow, Reservation 150. Robin Abad Ocubillo, 2012
29. Ghandi, Reservation 58. Robin Abad Ocubillo, 2012
30. Lola Beaver Memorial Park, Reservation 86. Robin Abad Ocubillo, 2012
31. Dennis Dollinger Memorial Park, Reservation 256. Robin Abad Ocubillo, 2012*
32. "Here I Stand," Reservation 317. Robin Abad Ocubillo, 2012
33. "Unity in Diversity," Reservation 306 D. Robin Abad Ocubillo, 2012
34. Adams Morgan Heritage Trail Sign. Robin Abad Ocubillo, 2012
35. LeDroit Park Gateway. Robin Abad Ocubillo, 2012
36. Swings at Reservation 87. Robin Abad Ocubillo, 2012
37. "Steve and Phil's Garden" Robin Abad Ocubillo, 2012
38. Reservation 164, 1927. Office of Public Buildings and Grounds, 1927[†]
39. Reservation 164, 2012. Robin Abad Ocubillo 2012
40. Reservation 274, 1929. Office of Public Buildings & Grounds, 1929[†]
41. Reservation 274, 2012. Robin Abad Ocubillo, 2012
42. S Street Dog Park, Reservation 144. Robin Abad Ocubillo, 2012
43. Community Garden. Robin Abad Ocubillo, 2012
44. Reservation 245, 1927. Office of Public Buildings & Grounds, 1927[†]
45. Reservation 245, 2012. Robin Abad Ocubillo, 2012
46. Reservation 72. Robin Abad Ocubillo, 2012
47. Reservation 74. Robin Abad Ocubillo, 2012
48. Reservation 154, 1992. Ronald Comedy 1970
49. Reservation 163. Robin Abad Ocubillo, 2012
50. Reservation 151. Robin Abad Ocubillo, 2012
51. Reservation 317B. Robin Abad Ocubillo, 2012

* after GIS Datasets acquired from the Office of the Chief Technology Officer of Washington, D.C. (OCTO DC), summer 2012

[†] From the "Reservations Photograph Collection SP 0035, 1926-1936." donated by the National Park Service to the Historical Society of Washington, D.C. in 1981. Used with permission.

BIBLIOGRAPHY

- Baker, Marcus (1894). *Surveys and maps of the District of Columbia*. Washington, D.C., National Geographic Society
- Barthold, Elizabeth (1993). "The Predicament of the "Parklets": Understanding Washington's Smaller Parks. *Washington History*, Vol. 5, No 1 (Spring/Summer, 1993), pp. 28-45
- Bednar, Michael (2006). *L'Enfant's Legacy: Public Open Spaces in Washington, D.C.* The Johns Hopkins University Press; 1 edition
- Berg, Scott (2007). *Grand Avenues*. New York: Random House.
- Brown, Glenn (1909). *The Plan of L'Enfant for the City of Washington and Its Effect upon the Future Development of the City*. Records of the Columbia Historical Society, Washington, D.C., Vol. 12 (1909), pp. 1-20
- Buchholz, Margaret Thomas and Lehmann, Josephine (1999). "Josephine: The Washington Diary of a War Worker, 1918-1919 " *Washington History*, Vol. 10, No. 2 (Fall/Winter, 1998/1999), pp. 4-23. Historical Society of Washington, D.C.
- Caemmerer, H. Paul (1944). *Charles Moore and the Plan of Washington*. Records of the Columbia Historical Society, Washington, D.C., Vol. 46/47, [The 38th separately bound book] 50th Anniversary Volume (1944/1945), pp. 237-258
- Cluss (1873). "Report of the Chief Engineer," 1873 BPW Report, pp. 12-13.
- Charles H. Conrad to Russell E. Dickinson, Nov. 6, 1972, NCPPC file 0368, D.C. Dept. of Public Works.
- Colyer, George Speer (1987). "The I/Enfant Plan in Downtown Washington: Its History and Prospects for Survival," M.U.R.P., George Washington University, 1987, 59.
- Council of the District of Columbia (2012). "DC HOME RULE"
<http://www.dccouncil.washington.dc.us/pages/dc-home-rule>. Retrieved 2012.07.20
- Council of the District of Columbia (1989, Mar 16). "District of Columbia Official Code ST § 10-166." Division 1 Government of District, Title 10 Parks, Public Buildings, Grounds and Space, Subtitle 1 Parks and Playgrounds, Chapter 1 General Provisions.
<http://government.westlaw.com/linkedslice/default.asp?SP=DCC-1000>. Retrieved 2012.07.20
- Crane, Brian D; Rutherford, Julie Abell Sulah; & Birrell, Lee Leo (1996). *PHASE I AND II ARCHAEOLOGICAL INVESTIGATIONS AT THE SOUTHEAST FEDERAL CENTER: DC HPO Archaeological Report # 358*

Raymond A. Devlin (1933). *Annual Report of Public Buildings and Public Parks of the National Capital*

District of Columbia Recreation Board and the National Park Service (1949, August 26). *Memorandum of Agreement between the District of Columbia Recreation Board and the National Park Service*

Duempelmann, Sonja. "Creating order with nature: transatlantic transfer of ideas in park system planning in the twentieth-century Washington, D.C., Chicago, Berlin and Rome." *Planning Perspectives* 24 (April 2009): 143-73.

Government of the District of Columbia, Department of Transportation (2011). *Public Realm Design Manual: A Summary of District of Columbia Regulations and Specifications for the Design of Public Space Elements*

Grant, Ulysses S. (1932). *The L'Enfant Plan and Its Evolution*. Records of the Columbia Historical Society, Washington, D.C., Vol. 33/34, [The 31st separately bound book] (1932), pp. 1-23

Gutheim, Frederick A. and Lee, Antoinette J. (2006). *Worthy of the Nation: Washington, D.C., From L'Enfant to the National Capital Planning Commission*. Baltimore, Md.: Johns Hopkins University Press

Hagner, Alexander B. (1904). *Street Nomenclature of Washington City*. Records of the Columbia Historical Society, Washington, D.C., Vol. 7 (1904), pp. 237- 261

Hawkins, Don Alexander (1990). *Topography of the Federal City, 1791*. Washington, D.C.: Library of Congress Geography and Map Division.

Heine, Cornelius W. (1953, 2003) *History of the National Park Service*. United States Department of the Interior, National Park Service, National Capital Parks

Hines, Thomas (1991) "The Imperial Mall: The City Beautiful Movement and the Washington Plan of 1901-1902," in Longstreth (1991), *The Mall in Washington*

Historic American Buildings Survey No. DC-339 (1993). *Logan Circle (Logan Circle Area Survey) (Iowa Circle) (Reservation Nos. 152, 153, 154, 163, 164)*. National Park Service.

Historic American Buildings Survey No. DC-669 (1993). *Dupont Circle (Reservation No. 60) (Pacific Circle) Intersection of Massachusetts, New Hampshire and Connecticut Avenues, 19th and P streets, NW, Washington, District of Columbia*

Historic American Buildings Survey No. DC-675. *Samuel A. Gompers Memorial Park and Reservation No. 68 (Edmund Burke Park) (Reservation Nos. 68, 68A, 69, and 69A)*

Historic American Buildings Survey No. DC-685 (1993). *Seward Square (Reservation Nos. 38, 38A, 39, 40, 41, 41A, 41B, 42, and 43) Intersection of Pennsylvania and North Carolina avenues at C street between Fourth and Sixth streets, SE, Washington, District of Columbia*

Historic American Buildings Survey No. DC-698 (1993). *Connecticut Avenue, Washington, District of Columbia*

Historic American Buildings Survey No. DC-703 (1993). *Massachusetts Avenue, Washington, District of Columbia*

Historic American Buildings Survey No. DC-706 (1993). *Pennsylvania Avenue, Washington, District of Columbia.*

The Historical Society of Washington, D.C. *Special Collections Finding Aid: SP 0035 Reservations Photograph Collection* (accessed June 2012). Washington, D.C.: The Historical Society of Washington, D.C. / City Museum

Hoagland, Alison K. (1989). "Nineteenth Century Building Regulations in Washington, D.C.," *Records of the Columbia Historical Society* 52 (1989): 70.

Jacobson, Samuel H (1895). "WANTS THE STATUES MOVED.: Those Which Obstruct the Streets Should Be Placed in Park" *The Washington Post* (1877-1922); Nov 23, 1895; pg. 8

Laugier, Marc-Antoinnes (1753). *Essai et Observations sur l'Architecture*, 1753, 65

Lessoff, Alan H. (2006). *Review of Scott, Pamela, Capital Engineers: The U.S. Army Corps of Engineers in the Development of Washington, D.C., 1790-2004.* H-DC, H-Net Reviews.

Longstreth, Richard (2002). *The Unusual Transformation of Downtown Washington in the Early Twentieth.* *Washington History*, Vol. 13, No. 2 (Fall/Winter, 2001/2002), pp. 50-71

Martin, Edgar S. (1972). *The Playground Movement in the District of Columbia Washington; Government Printing Office, 1912*

Barry Macintosh (1984). *The National Parks: Shaping the System.* Washington: National Park Service, p.24- 34.

McNeil, Priscilla (2002/3). "Pretty Prospects: The History of a Land Grant," *Washington History* 14:2 6-25. *Special Issue Commemorating the Centennial of the McMillan Plan with guest editor, Pamela Scott*

Miller, Iris (2002). *Washington in Maps.* New York: Rizzoli

Mosley, Brian W. (1980, June 26). "Residents of 16th Street Area Unite to Beautify Park" *The Washington Post* (1974-Current file); Jun 26, 1980;

Ignatius Mudd (1850). *Letter from the Commissioner of Public Buildings transmitting his Annual Report for 1850, House of Representatives, 31st Cong., 2nd sess., Ex. Doc, 47, 1851, 12.*

National Geographic (June 1923). (all articles) Volume 43, No. 6

National Park Service (2003). *National Capital Parks: A History*. Washington, D.C.: National Park Service, 2003.

Orlin, Glenn S. (1989). "Roads and Parks in Harmony." *Washington History, Vol. 1, No. 1 (Spring, 1989)*, pp. 58-69. Historical Society of Washington, D.C.

Passoneau, Joseph (2004). *Washington Through Two Centuries*. The Monacelli Press

Reps, John W (1991). *Washington on View: The Nation's Capitol since 1790*. Chapel Hill: University of North Carolina Press

Rockwell, A. F. I and Forsyth, William (1884). *Plats of Reservations and Public Spaces under the Control of the Commissioner of Public Buildings and Grounds in the City of Washington, 1883*; A. F. Rockwell, "Annual Report upon the Improvement and Care of Public Buildings and Grounds in the District of Columbia," Appendix SS, *Annual Report of the Chief of Engineers for 1884* (Washington: GPO), 2348.

Abbott, Carl (2002) "The Future of the Ceremonial City: A Third Century of Planning for Washington, D.C." *Journal of the American Planning Association* 68 2002: pp.125-36

Scott, Pamela: "The City of Living Green': An Introduction to Washington's Street Trees." *Washington History* 18:1/2 (2006): 20-45

The Trust for Public Land (2011). *2011 City Park Facts*. Washington, D.C.: The Trust for Public Land

Phillips, Philip Lee (1917). *The beginnings of Washington, as described in books, maps and views*. Washington, D.C.: For the author

Rettie, Dwight. *Our National Park System: Caring for America's Greatest Natural and Historic Treasures*. Urbana, Ill.: University of Illinois Press, 1996, p. 57.

United States Government Accountability Office (2005 April). *National Park Service: Managed Properties in the District of Columbia*. GAO-05-378

Washington Board of Trade (1927). *The Book of Washington*

The Washington Post (1879, August 4). "GARDENS IN THE CITY.: Col. Casey's Annual Report Regarding the Parks and Reservations." *The Washington Post* (1877-1922)

The Washington Post (1881, March 23). "PUBLIC RESERVATIONS.: What Will be Done

Towards Their Improvement This Spring.” *The Washington Post* (1877-1922)

The Washington Post (1881, August 2). “PUBLIC BUILDINGS AND GROUNDS.: Col. Rockwell on the Condition of the People's Property” *The Washington Post* (1877-1922)

The Washington Post (1881, June 2). “A MOST BEAUTIFUL CITY.: Washington in Spring and Summer and Its Glory.” *The Washington Post* (1877-1922)

The Washington Post (1884, May 6). “BEAUTIFYING THE PARKS.: One Hundred and Fifty Thousand Plants to be Set Out This Week” *The Washington Post* (1877-1922); pg. 2

The Washington Post (1889, December 24). “MRS. COLES' NEW HOUSE: Part of It Will Have to Be Torn Down, Says the Court.” *The Washington Post* (1877-1922); pg. 8

The Washington Post (1975, July 17) “Adams-Morgan Council Election Is Saturday” *The Washington Post* (1877-1995) pg. D_C_4

Wilson, John M. (1885). *Annual Report, Improvement and Care of the Public Buildings and Grounds in the District of Columbia, John M. Wilson, Lieut. Col. Of Engineers, Colonel, U.S.A., Appendix VV, Annual Report of the Chief of Engineers for 1885*. Washington, DC: Government Printing Office, 1885. P2506

Wilson, John M. (1886). *Annual Report, Improvement and Care of the Public Buildings and Grounds in the District of Columbia, John M. Wilson, Lieut Col. Of Engineers, Colonel, U.S.A., Appendix TT, Annual Report of the Chief of Engineers for 1886*. Washington, DC: Government Printing Office, 1886, pp2079-60

Wilson, John M and Stewart, John (1894). *Map of the City of Washington Showing The Public Reservations Under Control of Office of Public Buildings and Grounds*.