



2019

KUBOTA GARDEN MASTER PLAN UPDATE

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Fujitaro Kubota's Life, Inspiration, and Garden Style

The Kubota Garden mission statement incorporates respect as one of three key principles guiding the maintenance and development of the garden. In order to fully realize this objective, it is vital that Fujitaro's style, and the interconnections between his gardens and the Japanese tradition, are clearly understood. This section seeks to develop an understanding of those connections. The conclusions made in this section are based on direct evidence as much as possible, while also drawing upon close study of the similarities between representations of Japanese gardens common when Fujitaro started working as a gardener, and the Japanese-style gardens he built throughout his career.

The analysis of Fujitaro's work presented here is based on the understanding that design and reception of Japanese gardens is historically dynamic. Although the mannerist fashion that dominated Japanese gardens during the 19th and early 20th centuries is now widely dismissed, that had been the prevailing narrative in guidebooks and garden manuals since the middle of the 18th century. In the intimate, reflexive relationship between audience and artist, an "authentic" Japanese garden when Fujitaro started working in Seattle was different from our contemporary understanding.

The record about what Fujitaro may have studied, as well as his access to possible Japanese garden design source materials (books, postcards, prints, etc.), is limited. However, based on statements made by Tom Kubota, and comparing photographs preserved in the Kubota Garden Foundation archives, it is possible to situate Kubota's work within contemporaneous trends in Japanese garden design. The designs he executed are remarkably close to the forms and elements espoused by the available literature at that time (Conder, 1893, 1912 and Newsom, 1939); the likelihood that he arrived at these specific existing Japanese garden styles out of thin air is vanishingly slim. His use of rockeries, and the expansive, park-like spaces captured in early photographs of the Kubota property appear to be a combination of the large lawns and rock walls found in Edo period gardens, with the style of Seattle parks designed by the Olmsted brothers, making the case that Kubota was combining the gardens that he would have seen while visiting Japan with a sensibility cultivated in his adopted homeland.

One key conclusion of this analysis is that Fujitaro was not an iconoclast with a deliberate disregard for tradition, but was rather a master craftsman who showed a lifelong commitment to cultivating his skill and his art. In the vogue of the past half-century or so, such a conservative approach to following rules as they are written might seem 'square'. However, such an approach is not widely embraced even among Japanese gardeners at the time of this writing; when Fujitaro started his career as a gardener, the idea of rejecting tradition would have been even more extreme. While he did describe his frustration at being dismissed by gardeners in Japan, and was justifiably proud of his achievement in mastering his art without such support, the quote made by Tom Kubota during the 1996 interview with Don Brooks is the most direct statement about Fujitaro's view of Japanese garden rules available. Discussing how the design process for the section of Kubota Gardens known as the Japanese Garden, Tom said the following:

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Don Brooks: Tell us about the design inspiration, how he settled on this design and what were some of the thoughts?

Tom Kubota: In those days, I think he used to study some Japanese garden design, and most of it, from what I could see, is more conventional, “they build it like this,” and, “it should be like this,” so I think he followed that pattern and built this. My dad knew some friends and so forth that he used to talk about certain things, you know, the old people, so a lot of this was a challenge to him.

DB: Had he been back to Japan other times prior to the building of this [the section of the garden now called the “Japanese garden” - ed.]?)

TK: He’s been back to Japan quite a few times. During winter months when things were slow, he would say “I’m going to Japan”.

He’d look at gardens, some of the trips he brought back stone lanterns, things that pertain to gardens.

(Tom Kubota, tape 1:44:54 – 1:47:02; this section has been edited for flow, and to remove pauses)

Classifying Fujitaro Kubota’s Gardens: Styles

The Kubota Garden Foundation provides the best collection of historical images, not only for understanding the development of the Kubota property, but also for studying the types of gardens Fujitaro built over his career as a garden builder. There are several different styles of garden that were built by Fujitaro. From the images of gardens recorded in the Kubota Garden Foundation archives, the following patterns are recognizable:

- Hill-and-pond gardens
- Rockeries
- “Pocket” gardens
- Large-scale works

The hill-and-pond gardens created by Fujitaro were recognizably Japanese. Early photographs of these gardens, taken by professional photographers and staged with young girls wearing kimono mimic common themes from images of Japan, for example the photograph of a garden scene included in a 1902 lecture presented to the American Institute of Architects; the postcard in the KGF archives also shares some similarities. The historical context and precedents for Kubota’s hill-and-pond gardens are analyzed in detail below. Rockeries, another of Kubota’s earliest garden types, have a potential precedent in a type of Japanese wall commonly found in the countryside, but it is equally likely that these were an adaptation of a local practice. If Kubota were running a volume business during those early years, one possibility is that rockeries would have been a ready source of income that played well to Fujitaro’s skills with stone and the diversity of his plant palette.

While the hill-and-pond gardens and rockeries are featured in materials apparently intended for promotion, early photographs of the Kubota property are more personal: images of Kubota standing with guests on the original heart bridge, or photos of Fujitaro’s sons on the property while work was

being done to create the necklace of ponds. The grand lawns, punctuated with Japanese-inspired waterfalls and planting details, exhibit a park-like sensibility that would also feature in work in the late 1950's and 1960's at the Bloedel property on Bainbridge Island (now Bloedel Reserve). During the 1960's several other large-scale waterfalls were created, including the grand waterfall on his own property. Finally, the archives also capture images of gardens installed in planting boxes and other narrow, urban sites. These gardens present an abbreviated set of Kubota's design elements: carefully set stones, pruned conifers, and an assortment of shrubs to fill out the design. Although the scale of the campus is quite large, several gardens built by Kubota at Seattle University can be considered examples of this type of work.

The connection to precedents found in Japanese garden manuals is most clearly apparent in the hill-and-pond gardens. The convention that Fujitaro followed was set forth in garden manuals that were published in Japan's early modern period - the product of books directed at the popular audience in the 18th and 19th centuries. The garden type illustrated in these manuals was named *tsukiyama*, "artificial hill", and was characterized by the technique of excavating a pond, and using the excavated soil to create a hill immediately adjacent; the most widely published manual about this style was *Tsukiyama Teizo Den*, ("Method for Constructing Artificial Hill Gardens", synonymous with *Tsukiyama Niwatsukuri Den*). When describing the creation of the Japanese Garden at Kubota Garden, Tom Kubota describes exactly this process of construction.

Hill-and-pond gardens were a staple of the Kubota business: the oldest preserved promotional materials are picture-postcards of hill-and-pond gardens, the same set of elements appears in a picture of a demonstration garden built for a trade show in 1962. The waterfall at Seattle University campus, while incorporating the style of stone placement more common to Kubota's later work, still retains this same basic structure of hill, waterfall, pond, and islands. (Images of these gardens are below, in the section "*Tsukiyama* Gardens"). The waterfall gardens of the post-war period differ from the gardens illustrated in the garden manuals, but they follow similar precedents: the core principles of stone placement that are employed in Kubota's hill-and-pond style gardens are used as the building blocks for each of the smaller waterfalls that compose the scene as a whole.

Classifying Fujitaro Kubota's Gardens: Elements

In addition to categorizing Kubota's gardens according to the style of construction, the list of materials and plants he used in his designs also provides a useful approach to understanding his work. He used many elements of Japanese gardens; natural boulders, his use of earthwork to create hills and slopes, the variety of bridges he incorporated into gardens, stepping stones, and lanterns are all recognizable elements drawn from the Japanese tradition. However, for unknown reasons, some common garden features are absent in his design work, such as stone water basins, wells, arbors, and fences.

Additionally, Fujitaro incorporated a range of plants in his garden, notably carefully trained pines, but also a range of other conifers not typically associated with Japanese gardens. This choice of plant materials is often cited as a departure from the perceived strictures of Japanese tradition. However, in the garden manual *Japanese Gardens*, Josiah Conder introduced a list of plants used by Japanese gardeners with the disclaimer, "(T)he following list of Japanese domesticated trees, shrubs and plants may be found to some extent wanting in completeness," adding that while the plant names offered may be unfamiliar, "to omit all mention of them would be misleading and fail to give a correct idea of their rich diversity they imply an important addition to the landscape artist's stock of material

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for designing” (Conder, 1964, 110). The list that he provided ran to 12 pages of plants names, set out in paragraph form. For pines alone, there are 20 species, cultivars, and varieties named, included among them the “Tan-yo-matsu”, synonymous with tanyosho pine; the paragraph on Thuja included *Thuja pisifera* and *Thuja orientalis* var. *pendula* (sic), (now *Chamaecyparis pisifera*, and presumably *Platycladus orientalis* var. *filiformis* respectively); a list of fanciful *Podocarpus* selections offers varieties like “Gold-and-Silver *Podocarpus*” and “Spoon-leaved *Podocarpus*”, with further paragraphs listing flowering trees and shrubs, flowering forbs and perennials, and so on. The middle class gardens of the Edo period that would have provided the setting for the plants named in Conder’s list are no longer extant. In this regard, we might regard Fujitaro as the messenger for a type of Japanese garden that has been lost in the shuffle of time, a marker for an overlooked historical diversity.

Sources of Inspiration: World’s Fairs, Garden Manuals, and Travel to Japan

It was hoped that the historical research for this master plan would uncover concrete evidence about the sources of influence on Fujitaro’s work. However, Fujitaro’s motive for starting his gardening company, or any direct influences that might have played a role in his early work are not clear; even such basic information as the extent of his travel to Japan during his life, or his ongoing engagement with his family in Japan, is minimal. Despite this lack of certainty, it is possible to make significant progress placing Fujitaro’s work in the historical context of Japanese gardens being built overseas and relate the gardens he built to contemporaneous books and widely known gardens in Japan.

By the time Fujitaro started building Japanese gardens, the first great wave of fascination with Japan had crested. By the turn of the 20th century Japanese architecture had exerted a profound influence on American architects and houses – Frank Lloyd Wright had been deeply impressed by the Japanese pavilion at the 1893 Columbian Exposition in Chicago. Architectural historian Kevin Nute catalogues the extent of fascination with Japan during the late 19th century in relation to the work of Frank Lloyd Wright, and notes that by the time of the Columbian Exposition, Japanese influence was so extensive that it would be challenging to locate any single source of inspiration (Kevin Nute, *Frank Lloyd Wright and Japan*, 2015). The Japanese influence on the Craftsman-style extended throughout the whole movement. Turn-of-the-century Southern California architects Greene and Greene were openly emulating Japanese carpentry in their design of Craftsman-style houses. This influence included gardens, and a Japanese garden was an expected component for the estates of the wealthy elite. These private Japanese gardens were written about in magazines such as *The Craftsman*, *American Homes and Gardens*, and even in *Scientific American*.

In Seattle, one Japanese garden remaining from this period is still extant: Katie Black’s Garden, located on the north end of Beacon Hill. Frank Black, owner of Seattle Hardware Co., had built a Swiss chalet on three acres of land on Beacon Hill in 1896. In 1914 Frank offered to take Katie, his wife, on a grand tour of Europe as an anniversary gift; she replied that she would rather have a Japanese garden built.

The other notable story of Japanese gardens from this period is the garden that was not built for the Alaska-Yukon-Pacific Exposition in 1909, although an abbreviated garden in front of the teahouse on “Tokio Street” is preserved in several archive photographs. The absence of a Japanese garden at the Alaska-Yukon-Pacific Exposition is particularly striking, as World’s Fairs had been one of the major public sources for promoting Japanese gardens: the world’s first international Japanese garden was built in 1873 at the Universal Exposition in Vienna, and gardens remained a key feature of Japanese pavilions at subsequent fairs.

When the Meiji Emperor took power in 1868, the new government set about on a major project of global outreach, trying to establish Japan as a respected nation on the world stage. World's Fairs were a new phenomenon at this time, a prime opportunity for national image building, and the decision was made to present a Japanese pavilion at the Universal Exposition to be held in Vienna in 1873. The timing of this exhibit could not have been better for Japan: both England and France, the two major powers behind the fairs, had decided not to participate; and, European capitals were abuzz with japonisme.

In preparing for the exhibit the Japanese government had received advice from G. Wagener, a German chemist who was employed by the Meiji government as an industrial adviser. Under Wagener's advice, the Japanese pavilion set out to emphasize Japan's exotic qualities, on the notion that a simple display of industrial progress along the lines of Western powers would not appeal to the European audience. The Japanese exhibit included a shrine, a wooden bridge, and a small garden built by Japanese tradesman who were sent to Vienna to install the pavilion. During the opening, the Empress of Prussia visited the Japanese exhibition while the Japanese workers will still completing the work and was so taken with experience that she had one of her servants collect a shaving from one of the carpenter's planes.

The success of the Vienna Exposition established a formula that endured in Japanese World's Fair pavilions, yielding many of the Japanese gardens built in U.S. cities. These included Philadelphia (1876, now Shofuso); Chicago (1893, largely destroyed during WWII but rebuilt); St. Louis (1904, no longer extant); San Diego (1915, the original garden has since been replaced); the Japanese Tea Garden in San Francisco was built for the 1894 exposition, but is unusual in that G.T. March, an Australian antique dealer who had immigrated to the United States by way of Japan, played a significant role in the design.

Garden Manuals

The gardens built for World's Fairs and private estates might have played a role in Fujitaro's decision to become a gardener, but they are less likely to have provided material for his study of Japanese garden design. Tom Kubota described Fujitaro's approach to the Japanese Garden on the family property as one that closely followed a set pattern: "In those days, [Fujitaro] used to study some Japanese garden design, and most of it ... is more conventional, 'they build it like this,' and, 'it should be like this,' so [Fujitaro] followed that pattern and built this." (Tom Kubota, interview with Don Brooks). When asked about any books or other guides that Fujitaro might have used, Allan Kubota did not recall seeing any books (personal communication, 2018). However, it is possible that any books Fujitaro had were lost during the 1942-1945 internment.

Written manuals have a long and well-respected role in the Japanese tradition. The oldest of these texts, the *Sakuteiki*, was written by a middle-rank aristocrat in the 12th century and is still studied today. Over the following centuries, numerous new texts elaborated on existing principles, or articulated new modes of garden design, establishing garden design as a treatment of serious inquiry among the elites. The manual that Fujitaro is most likely to have encountered, in one form or another, was *Tsukiyama Teizo Den*, first published in 1735 by Kitamura Enkin. In 1828 Akisato Rito, an author who had started his career writing about flower arrangement, republished this text, and it was further adapted and re-published several more times during the 19th century.

The most notable of these, as concerns reception of Japanese gardens in the Western world, was an adaptation to the lithographic process made in the 1880's by the comic illustrator Honda Kinkichiro.

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Honda went on to provide these illustrations to Josiah Conder, who used them for *Japanese Gardens: An Illustrated Guide to their Design and History* (1893), the first English monograph treating Japanese gardens. Conder lived in Japan from 1877 until his death in 1920; he is best known as the founding professor of the Department of Architecture at the Imperial College of Engineering in Tokyo. In 1902, Honda presented a lecture about Japanese gardens, accompanied by “lantern slides”, to the American Institute of Architects in Chicago; the notes from this lecture, along with a reproduction of the slides, was published that same year. The list of books that relied upon the illustrations from *Tsukiyama Teizo Den* to explain the proper rules and true nature of Japanese gardens to Western audiences is quite long – it is easier to state that *Tsukiyama Teizo Den* featured prominently in nearly every book about Japanese garden design published through 1930’s, at a time when as many as 10 new books were being published in English every year.

While this connection to the Western perception is important for the reception of Fujitaro’s early work, it is important to remember that Fujitaro would have been comfortable with the written Japanese used in academic writing from his experience studying in agricultural school while he was still in Japan. In Japanese, just as in English, the same saturation of the field occurred: between 1890 and 1920, seven separate publishing companies produced editions of *Tsukiyama Teizo Den*, sometimes with separate authors listed, but all under variations of the original title. This list of Japanese books does not include works that are derived from the original but were published under separate titles.

Direct study of gardens while visiting Japan is the second major source of knowledge and inspiration for Fujitaro’s work as a designer, based on statements from both Fujitaro and Tom Kubota; according to Tom’s statement, this could have been as frequently as every year. As with the other elements of Fujitaro’s life during this period, details remain elusive: there are no confirmed travel dates that place Fujitaro Kubota in Japan during the early 1920’s. An image in the Kubota Garden Foundation archive dated “1920-0-0” shows the Kubota family on board a ship bound for Japan (KGF Photo #69), does provide evidence of travel, while the closest dates that can be confirmed are a trip in 1931, and another in 1939 (per the Pacific Coast Architectural Database; <http://pcad.lib.washington.edu/person/5033>).

In the Kubota Garden Foundation archives, there is a picture postcard of the Joju-en garden at Suizenji – as this postcard is the only most concrete evidence of Fujitaro’s study in Japan, it bears some consideration. There is a caption on the front of the postcard that reads (in Japanese), “(100 views of Kumamoto); Overall view of Suizenji Joju-en, where there is a cold mineral spring.” While the postcard in the archive is not dated, the image shown is still available in reprints and through antique book auctions, in addition to other images from the same series of “100 views”. Searching auction lots listed on the internet in 2018 returned one auction lot for the exact same image dated Taisho 12 (1923), while another dated image from the same series was dated 1929. It has long been common practice in Japan to re-print images of many years, so this long duration is not unexpected. Significantly, these two dates bracket the years when Fujitaro was starting his business, and likely most actively studying gardens while in Japan. The garden of Ritsurin Koen, in Takamatsu, has also been put forward as a significant influence on Fujitaro’s work, but the basis for this is not clear; a 1968 Seattle Times article states that Fujitaro saw gardens in Kochi as a youth, and that his appreciation developed from that experience. One possibility is that a lack of familiarity with Japan lead to Ritsurin Koen being equated with ‘gardens in Kochi.’ Modern travel time from Kubokawa, where Fujitaro grew up, to Takamatsu, where Ritsurin Koen is located, are 5 hours at minimum. Given this, it is unlikely that Fujitaro would have had the opportunity to make the much longer trip while living in Japan. However, both Ritsurin Koen and Suizenji are the former palaces of Edo-period feudal lords. Although these gardens were built at the grand scale of

palaces, they were both in the *tsukiyama*-style, built during the same historical period that produced the garden manuals that Fujitaro appears to have studied, again lending support to the decision to recognize Fujitaro's gardens as a local synthesis of the *tsukiyama*-style.

Tsukiyama-style Gardens

The word *tsukiyama* means “artificial hill” and this eponymous feature is the defining element of *tsukiyama*-style gardens. As described above, these hills were created by excavating an area to create a pond, and then mounding the excavated soil as a hill that would serve as a backdrop for the garden. These hills would be set with stones and would often incorporate a small stream and a waterfall, and would be planted in such a way that they might represent fanciful mountain scenes. The practice of using excavated soils to make adjacent hills has been part of the Japanese garden tradition since at least the 12th century, and so the presence of these hills alone does not necessarily categorize a garden as *tsukiyama*-style.

In addition to the pond, hills, waterfalls, and stone placement, the *tsukiyama*-style incorporated a set number of other features that are defined in careful variety in the garden manuals like *Tsukiyama Teizo Den*. Japanese Gardens: an Illustrated Guide to their Design and History, Josiah Conder's 1893 adaptation of this manual for an English-speaking audience, elaborates these elements in slightly more detail than the Japanese originals, but is useful as a primer. The chapter titles of Conder's text provide a neat list of garden features, as follows: stones, lanterns, pagodas, water basins; enclosures; wells; bridges; arbors; ornamental water; vegetation, garden composition. Each of these chapters provides examples of the variety for each element and sets forth elaborate rules about the appropriate use and meaning attributed to each feature and style.

Fujitaro did not include all of these features in his gardens –water basins, wells, and fences were notably absent from his designs – but other features he employed are recognizably laid out in the manner described in the text. This pattern can be recognized in the comparison below, pairing plates from garden manuals with gardens built by Fujitaro.

Fujitaro Kubota's Personal History

Research into Kubota Garden included effort to uncover sources of documentation that would shed light specifically on Fujitaro Kubota, his life, and his work as a landscape designer and gardener. Most of the resources that were found in this regard are maintained by the Kubota Garden Foundation. These materials include the following: a video interview with Tom Kubota, conducted by Don Brooks in 1996; an article for the Kubota Garden Foundation newsletter written by Mary Ann Parmeter, also 1996; three masters' theses that examine Kubota Garden; and, the photographic archive maintained by the Kubota Garden Foundation. Two of the masters' theses were written by Landscape Architecture students at the University of Washington (Keith Mastenbrook, 1987; Thomas Robinson, 1997), the third written by Tama K. Tochiyama (Cornell University, 2003). The photographic archive gathered by the Foundation contains over 2,100 items at the time of this writing, although there are duplicate images included in this raw count. This archive provides a window into the visual and material history of the garden, as well as the broader context of Fujitaro's work as a garden designer, and some sense for the setting of his day-to-day life. While these images do not shed any light on motivation or interpretation, they are invaluable as a guide for appropriate maintenance of key historical features in the garden.

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In addition to the materials in the Kubota Garden Foundation archive, specific information about Fujitaro's travel to Japan was found in the Pacific Coast Architectural Database at the University of Washington. The East Asian Library at the University of Washington also has a copy of the book *Issei: A History of Japanese Immigrants in North America* (Kazuo Itoh; Japanese Community Service: Seattle, 1973) - there is a brief record of a 1965 interview with Fujitaro translated in this text (the book was originally published in Japanese). The Seattle Times has published articles and interviews, as well as historical research published in the Washington Park Arboretum Bulletin, and

These core documents are supplemented with scholarship on Japanese history a close readings of Japanese garden manuals published during the late 19th and early 20th centuries. These resources are detailed in "Bibliography". It is important that underscore that the broad historical arc of Japanese gardens as a cultural export and subject of Western fascination do not necessarily shed light on the inspiration for Fujitaro Kubota's work as a garden designer: the conclusion of this research is that Fujitaro was aware of trends and expectations around Japanese gardens and Japanese cultural presentation, but it is important to respect his right to determine his own narrative by resisting the inclination to subsume his personal, individual experience of immigration, acculturation, and artistic expression under generalities and universal assumptions. Historical information is provided a contemporaneous context for Fujitaro's work and shed some light on his synthesis of Japanese culture in Seattle's social environment.

Bibliography

The following resources is a selection of the books that would have been available to Fujitaro as he studied Japanese garden design; it is not known if he used these particular books, but they provide a representative sample of the types of books being published through the pre-war period, from the late 19th century through the late-1930's.

Josiah Conder 1852 - 1920

Conder was a British architect who immigrated to Japan in 1873 as the first professor of architecture at the Imperial College of Engineering in Tokyo. Conder's *Japanese Gardens*, published in 1886, was the first English monograph about the subject. The illustrations for Conder's work were provided by Kinkichiro Honda and were closely copied from the illustrations of Tsukiya Niwatsukuriden.

Conder, Josiah. *The Art of Landscape Gardening in Japan*. S.I., 1886. Print.

Conder, J, and K Ogawa. *Landscape Gardening in Japan. Supplement to Landscape Gardening in Japan. with Collotypes by K. Ogawa*. Tokio: Kelly and Walsh, 1893. Print.

Tatsui, Matsunosuke 1884 - 1961

Tatsui was one of the major figures in Japanese garden studies during the early 20th century. He was among the founding faculty of the Tokyo Landscape High School in 1914, and one of the founders of the Japanese Garden Association (日本庭園協会) in 1918, an organization that is still active in Japanese garden research and teaching. If Kubota were searching for places to study Japanese gardens, it is possible that he was aware of the Japanese Garden Association.

Tatsui wrote many books, both in English and Japanese, with an emphasis on understanding the rules and proper design of Japanese gardens. He referenced Tsukiya Niwatsukuriden throughout his books from the 1920's into the 1950's. Tatsui also wrote a preface for Newsom's 1939 *Japanese Garden Construction*, praising the mastery that Newsom demonstrated.

Tatsui's first books about Japanese gardens were being published at roughly the same time that Kubota's earliest gardens were being completed in Seattle, in the early 1920's.

Tatsui, Matsunosuke. Teien Kenkyū Jūgodai [庭園研究十五題]. Tōkyō: Kokushi Kōshūkai, 1923. Print.

Honda, Kinkichiro 1850 – 1921

Honda was an illustrator, whose early work focused on drawing and art education for schools. He adapted the woodblock illustrations of Tsukiyama Niwatsukuriden to the collotype process. In 1902 Honda presented a lecture to the American Institute of Architects, and in 1910 was responsible for the design of a Japanese garden at Shepherd's Bush, London, United Kingdom.

Honda, Kinkichirō. Zōho Zukai Teizōhō: Zen [增補圖解庭造法 : 全]. 1896. Print.

Brown, Glenn, A D. F. Hamlin, R C. Sturgis, John G. Howard, and Kinkichirō Honda. European and Japanese Gardens: A Series of Papers Read Before the American Institute of Architects. Philadelphia: H.T. Coates & Co, 1902. Print.

Honda, Kinkichirō. Nihon Meien Zufu [日本名園圖譜]. Tōkyō: Koshiba Hide, 1911. Print

Shiota, Takeo 1881 - 1943

Shiota studied gardening in Japan near the turn of the 20th century before emigrating to New York in 1907, at the age of 26. In 1914 He designed the hill-and-pond garden for the Brooklyn Botanical Garden, and in connection with that, published several books between 1915 and 1920.

Shiota, Takeo. Japanese Gardens and Houses. The Alexander press, 1916. Print.

Shiota, Takeo. The Miniature Japanese Landscape. Newark, N.J., 1915. Print.

Other Contemporaneous Publications

In addition to books, there were many articles being written about Japanese gardens during the early decades of the 20th century, in magazines that included Scientific American, McClure's Magazine, The Craftsman, House Beautiful, as well as newspapers and other outlets. World's Fairs also consistently featured Japanese gardens as prominent and widely publicized displays, with the notable exception of the Alaska-Yukon-Pacific Exposition held in Seattle in 1909.

Current Resources (as of 2019)

There are countless books about Japanese garden design - well over 1000 different titles can be found in print or in libraries. Many of these present an image of Japanese gardens as unchanging and divorced from human daily life, without paying proper attention to the ways in which Japanese garden artists are historically situated. The two books here are recommended because they shed light on the historical moment when Fujitaro was starting to work. For conservators working to maintain the gardens built by the Kubota family, as well as designers and review committees intending to develop new additions, this attention to history is vital in preserving Fujitaro Kubota's legacy.

Kuitert, Wybe. Japanese Gardens and Landscapes, 1650-1950. Philadelphia: University of Pennsylvania Press, 2017. Print.

Newsom, Samuel. Japanese Garden Construction. Poughkeepsie, N.Y: Apollo, 1988. Print.

WORKSHOP SUMMARIES

Kubota Garden Workshop Sessions

May 7-9, Mt. Baker Rowing Center

These workshops represent the Discovery phase of the Master Plan Update. These workshops were limited to representatives from the Client Team (KGF and SPR) and included invited guests from a wide range of regional botanic gardens and garden-related fields. The objective of these workshops is highlight all potential issues, questions, concerns, garden improvements, and long-range goals. Discovery phase input from the public will be done in the Garden on June 17 and June 23.

Session One: Circulation and Accessibility

Summary: This session focused on three key elements: accessibility to and through the garden, overall circulation through the garden, and access points to the garden. Any proposed changes to the circulation system must be seen through the lens of why Fujitaro selected this site: its topography and water. Currently, the garden is accessed through a variety of entry points which will soon be closed off when the ornamental wall is completed. The main gate, positioned at the eastern high point of the property, will then be one of two formal access points into the garden. Docents have noted that, given the topography of the site, elderly people can make it down to the lower portion of the garden but then need assistance getting back up the hill to the main gate. A potential third formal access point to the garden, a docent-activated keyed entry gate from the property north of the Stroll Garden, would allow for pre-arranged docent-led tours with wheelchair accessibility to much of the lower garden. Other issues discussed included path surface treatments (gravel or paved), more seating, access to the natural areas, any new garden development meeting current accessibility requirements, and correcting existing deficiencies in accessibility.

Equal access for all

Need more benches and seating areas for resting

Possibility of drop-off and pick-up golf carts

People can get to the bottom of the garden, but there is difficulty for mobility-impaired to get back up the hill without assistance

What is the right solution for the garden and its users?

Healthy community – Parks program

Preservation of the garden experience

Preservation of the idea behind Kubota Gardens – Fujitaro selected a site with water and topography, mobility of the public through the garden in his era was by vehicle

Side topics:

“Respect the Kubota Vision”

A people’s garden – not an estate garden

There is a practicality to this garden – dual purposes green space and an economic provider

Need a collective mission statement for the Foundation, Parks, and the Garden – Hoyt

Arboretum is similar in nature to the Foundation: non-profit supporting capital projects and volunteer program, no admission, no dedicated revenue source.

Hoyt combines Parks and Foundation offices to encourage congeniality and common vision. As a public garden working with volunteers, there is a need to understand each other, respect each other, and going to bat for each other.

Without congeniality, there are inherently different goals that develop. Look to combine sets of common goals with shared decision making process. In Seattle, the Specialty Garden Division is working toward this idea.

Cultivate relations with higher-ups. The Specialty Gardens are only 4 of 477 parks within the system. Currently, Parks is supportive of what is happening at Kubota “because we aren’t a headache” Don Brooks.

Currently there is no MOU or formal relationship between Parks and Foundation, but is underway

What are the options?

- | | |
|--------------|----------------------------|
| Do Nothing | Remain public |
| Do something | Public-Private Partnership |
| Do it all | Private-Public Partnership |

What is the strategic plan behind the mission statement – how are you going to make it happen?

Identify the funding sources

Altered Views:

- #1: Delete North #1 view
- #1: Move South #1 view to the east – Investigate if there are territorial views to the lake and east
- #3: Should be panoramic view
- #6: View should also include view of woodland
- #7: View needs to be maintained by staff so everyone can see it
- #10: View should also include view of woodland
- #12: Should move southwest

Added Views:

- Along all pedestrian paths that circulate next to ponds
- Panoramic views at centers of any bridges that cross ponds
- At all path crossings of the waterfall – views up toward waterfall and down to ponds
- Panoramic along Stroll Garden Path between view 4 and 5 – See Board scan for location
- View framed through pines of lantern, southwest of 4 – See Board scan for location
- View corridor if maintained of Moon Bridge and Mountainside, west of 11
- Panoramic view from Entry Gate
- View toward Spring Pond east of 9
- View of the Japanese Garden from the Maple Wood
- Entry into Stone Garden

Views of Entry/Wayfinding to Kubota Garden:

- Need rainbow SPR signage from Renton Ave S, to let visitors know it is part of SPR and wayfinding notification that you are approaching Kubota’s entry
- From the parking lot de-emphasize the wall and entry toward picnic table area and emphasize the Entry Gate
- Orient visitors to Entry Kiosk
- 55th Ave S. should have views into parking lot toward Entry Gate – general agreement by most groups that the parking lot is more a part of the community than the beginning of the garden.

Investigate:

WORKSHOP SUMMARIES

Parking Lot should feel welcoming and part of the community, not necessarily the same language as the garden. It should feel open. How do you differentiate the parking lot from the garden?

Investigate what are the community views into the garden. How does the garden welcome the community in, as the wall can feel insular?

There are views along the service road. Are there services roads that are purely service only, with no public access?

Can there be items or cues in the pathway that make visitors pause and look at view (example of the stepping stones that make people pause and look)?

Identify different views per times of year:

- Flowers blooming, leaves turning color, winter views not seen in summer, etc

- Tour guide brochure has started this

Acknowledge which views are accessible and can be seen by children

How do you create legibility of the watershed/Mapes Creek, for wayfinding and education?

Session Two: Events, Programs, and Scheduling

Summary: Discussion centered on the tours and event spaces to understand what the key issues are in improving the visitor experience. The need for amenities, particularly restrooms, was clear from the start. Restrooms and parking are key limiting factors in expanding beyond the current level of visitation and events. Will Kubota be an event-based garden or a visitor-experienced garden? From a staff viewpoint, maintaining the quality and condition of the lawn areas for events is paramount to the visitor experience. Information shared by the Portland Japanese Garden in regards to maintenance, memberships and admission was most helpful. The garden does have photo-seasonality (fall color, spring color; wedding and graduation photos, mother's day).

- Currently 65 organized tours a year, 90-120 minutes long

 - Intro into family history, garden evolution

 - 20% of visitors will take a guided tour

 - 45 minutes with Q&A is the idea length – consider shortening tour

- There are mobility issues, requests for shorter tours

- There are natural gathering areas throughout the garden

- There might be 15 benches hidden throughout the garden

- A 30-minute introductory video at a visitor center and online would be helpful

- The need for amenities is clear, particularly restrooms

- There are three large organized events – the two plant sales and the annual meeting

Circulation from the entry gate into the garden is unclear, wayfinding and clear routes are needed

UW Dept of Landscape Architecture has used the garden in the past – engaging the academic communities is an option

How do events currently effect the neighborhood? Parking? Noise?

What is needed to properly host events? Amenities? Parking? Lighting? Safety

What is Kubota’s specific branding effort and graphic presence both online and in print?

What does Kubota Garden mean to visitors? What is the mission and message of the Garden?

Use technology – phone app tours, audio, online mapping, link in brochure

A visitor center will have an ability to tell the Kubota story in different ways

Wedding guests are not the target market for Kubota – they are wedding guests first, limited touring of the garden, typically leave at end of event.

Look at the National Park Service interpretive system for different tour lengths – 4-6 minute video blocks work best

User descriptions: sweetheart photos, photo ops from weddings, quinceanera, graduation/proms.

Are evening events desired? What are the garden implications in terms of visitor services?

Gardeners have seen children grow up, note that garden etiquette is not being taught

Not much marketing of the garden at the neighborhood level

Advertising with the high schools

Visitors from outside of King County coming to Kubota are garden aficionados.

Significant party – Kubota Days Celebration that elevates the profile of the garden

Side Topics:

Cultural impacts

Fujitaro’s contribution to NW horticulture and the Japanese community

The larger immigration story that Kubota represents

Need to be part of a specialty garden tour

International Japanese Garden Association Conference is in Portland this year.

What are other regional horticultural activities that Kubota can tie into/be a part of?

Need a survey of activities that occur at the garden

Pet bunnies on the lawn

How can one’s cultural identity be preserved?

Issue of equity – can anyone come and do what they want?

Doesn’t look like you are entering a garden – the wall blocks the view – not welcoming

The information kiosk is often bypassed, needs to be part of the entry gate experience

Which garden elements are most important in terms of viewing? The overlook terrace.

Kyle from Parks and Recreation organizes the requests for events.

Fees are associated with private event rental permits. These funds go to the general fund for the city.

These funds help to pay gardeners.

There are business questions to address how to sustain the garden in the long term associated with fees or admission, etc.

If Kubota wants to charge an admission fee, then it will need to be approved by City Council.

Model’s within the Park’s system that charge admission and are run by a private group include

the Conservatory and Japanese Garden. There is a MOU between the City and the Partner,

where the private group will receive a % of the revenue of admission fees if they reach an expected benchmark attendance. This % is negotiated and requires the group/Foundation to

handle marketing to visitors. Parks manages the ticketing.

WORKSHOP SUMMARIES

Portland Japanese Garden – leases land from the City for \$1. PJG is a non-profit and runs the garden.

They began with 5 acres and 7 staff. Now they are 12 acres and 100+ staff.

Current Events: Currently prep for events does not take much staff time. It is mostly just mowing and watering at an appropriate time before the event.

Weddings: Currently the number of weddings are limited: Average of two dozen wedding events with a maximum capacity of 150 people. Held in 4 hour increments in 3 times slots (8-11, 12-3, 4-7). Typically it is 1 wedding per park per day, but Kubota has 3 slots but never fills the slots.

Wedding rentals are \$200/hour with 3 hour minimum + \$25/hour staffing fee.

Don discussed the limitations with weddings, including vehicular access and parking constraints, how it impacts the garden, limiting access for other visitors. He discussed how he would like the weddings to have a good involvement with the garden such as when the wedding party has a procession through the garden (not just pictures) and that the wedding guests should see the garden as well.

Joy to send J&J Ceremony Brochure

Plant Sales: Fundraising plant sales. 4 hours at 2 times a year.

Membership Meeting: mid to late September

Butoh Performance: July 12-3 in the Stroll Garden

Soap Stone Carving: New event on June 2nd

Japanese Iris Exhibition

Public and Private Tours

Quinceneras

Family Egg Hunts during Easter – not an official event

Mother's Day – used to be staffed with volunteers handing out flowers and polaroid pictures; biggest day of the year

Unscheduled Volunteer Events: Pruning, Dead Heading, etc

Photography: Permits are \$25 for 4 hours, but many people do not get the permits

Future Events:

Art, Gathering, Concerts – may be difficult to sustain financially and contain

Solstice Events

Institutional Memberships like Portland Japanese Garden (PJM) 's \$5,000/year with a private closed day.

Does the garden intent to have different capacities of events in the space (Core garden as the traditional garden, south garden available for larger gatherings, are there spaces for small weddings 10ppl?)

How do you welcome the community?

Children's Group Tours

Outreach components to events to make connections with the neighborhood.

For future planning of event capacity, Parks has to research the impact of noise and parking on the neighborhood and will require outreach to neighborhood groups through the Foundation.

Look at how future events may affect flow and access to the garden

Events require resource staff, so thinking about future staffing is a must.

Storage unity on site to store tables and chairs for events would be convenient.

Custodian staff to clean up events as well as bathrooms.

Look at what do you offer the neighborhood? Community event space, free days if you start charging admission, community programs, etc

How do you reduce conflict of event times? Should you show a schedule of events that day on the welcome kiosk?

More scheduled events may lead to less impromptu events and takes away from a feeling of the garden to be open to everyone.

Events and Rentals create an expectation of maintenance but don't have to the staff to maintain fully

What is Kubota Garden?:

"People's Japanese Garden" – community garden

Look at vision statements from Murase Plan

Don't want to create a business plan first in defining Kubota, because they hope the master plan process will help to inform identity/mission.

Look at quarterly surveys of visitors.

The Gate was intended to be a "transition" and "threshold", not as an excluding element. The wall gives a different sense of space.

The feel of the garden as everyone's garden may be at the garden's detriment, as there is not orientation or information on code of conduct within a garden. Staff maintain the garden to dissuade visitors from degrading the garden – calling it "engineering for success" (Plant thickly so no trails, no pruning trees to deter climbing,

PJG wishes they had a visitor orientation in their new entry.

Kubota Garden different than a Park:

Even though Kubota is a "Garden" many view it as a "Park"

Without an admission charge, SPR funds are limited and it is treated like a park in terms of funding

The zoo and aquarium switched to private non-profits, leasing land from the city due to funding shortages to staff.

Specialty Gardens are open free of charge on the 1st Thursday and 1st Saturday

Session Three: Security

Summary: It is 'Security' not 'Surveillance'. There has been limited vandalism within the garden, particularly after the fencing was installed on 51st. With the forthcoming completion of the wall, entry will be limited to two points from the parking area. Issues with the parking lot led to an in-depth discussion of security cameras in the parking area to help with break-ins. Also noted that parks' standards call for remote-operated automatic locks for restroom facilities to allow for off-site closure of the building for maintenance safety purposes

It is 'Security' not 'Surveillance'

Emergency Services – emergency routes, after-hours access

Currently, garden staff leave at 3:30, private firm locks the gates at 10pm

What are the roles/expectations of garden staff in security?

What are other security issues?

Display-related

Weather-related

Visitor-related

Staff works at garden from 7-3:30 Monday-Friday

Staff walked through garden with Fire and Police but should do this orientation again as staff has likely changed since the last walk through.

Emergency Utilities:

Fire hydrants are a distance away.

No sprinklers in the maintenance building.

There is a Knox box on the maintenance building to access the garden maintenance vehicles, but the police and fire do not use it. If there is an emergency, they will cut the gate lock and drive in.

Emergencies and Security Inside Park:

Only a few emergencies in the garden. (Heart attack at a Foundation Meeting, falling in the pond, spraining ankles, etc)

There is very little vandalism:

Only 3 times was there graffiti on the wall

Few times there was graffiti on the Mountainside, but since 51st has been gated and fenced off, there has been no vandalism on the Mountainside. It may be too far to walk to vandalize?

The majority of issues they have is through inadvertent vandalism with visitors not knowing how to conduct themselves in a garden such as: breaking off branches and flower, climbing trees, climbing rocks, killing moss, etc.

Low amount of homeless camping, most likely because there is no restrooms, no access to showers, no access to food, or services, etc.

Illegal dumping on 55th ave S. – need to berm or barricade access from road

Security in Parking Lot: Most of the security concerns revolve around the parking lot's burglaries. Most likely a team of professional, using multiple cars and a look out, where they can come into the parking lot, burglarize a car, and leave within a minute.

There are break-ins during the day and during busy hours, so not just after hours or off hours.

Specialty Gardens are often hit by car burglaries.

Types of Security Options:

Parks allow Security Cameras, not Surveillance

There is a City Surveillance Ordinance, but Parks is exempt and can use cameras.

Public can access security footage, but has to be approved, by Parks and the City

Cameras can be mounted 30' in air to deter vandalism of equipment

Investigate ways to slow cars down, to deter smash and grabs. Look at circulation of cars, speed bumps, reconsider location of parking lot.

Care taker Residence or Intern; Coleman and Seward and Westbridge have one site people, but SPR moving away from this model.

Automatic gates can be installed on big facilities such as Rainier Beach, Jefferson Court- Bowling Green, and Interbay Brown Bear Facilities, but are not feasible on smaller projects due to cost.

Automatic locking system for restrooms: Comfort Stations can have issues with prostitution, drugs, and homelessness. New monitoring and remote locking systems can help with staff safety and monitoring of illegal activities.

- Can be monitored remotely
- Gives notice that people are using the facilities after hours or at inappropriate hours
- Remote locking control, so staff doesn't have to manually lock (helps with keeping staff safe)

Look at designated parking for staff, close to maintenance

Investigate where there are "holes" in the surrounding fence/wall of the garden.

Visitor Center may need sprinklers, cameras, PA systems, key card access depending on size.

Automatic solar powered motion sensor lights in the parking lot may help deter illegal activities

Site Safety:

- No sliding slope concerns- mostly glacial till and low slopes
- No known toxic contamination – removed old oil tank (Kubota's had a gas pump) and remediated area.
- No other dumping or toxic material history as far as the Foundation and staff know
- Look at removing questionable trees – trees at the end of their life, diseased, etc

WORKSHOP SUMMARIES

Session Four: The Site

Summary: The Mapes Creek Natural Areas provide the counterpoint to the more formal areas of the Garden. The Natural Areas have received a tremendous amount of restoration work through the Green Seattle Partnership. The focus has been on invasives removal and replanting with habitat-supporting plants. The Natural Areas provide the green backdrop from many of the Garden's viewpoints. A wildlife survey will be carried out at the end of May to determine the current resident and migratory bird species using the natural areas as well as a roster of wildlife that would potentially use such an area.

Green Seattle Partnership has been working the natural areas around Kubota Garden

- Removed 772 ivy plants

- Installed 13,192 plants in Mapes Creek watershed

- 25 events per year

- Counterpart to designed gardens

- No trail development beyond those needed for maintenance

- Focus on providing habitat for nesting birds – limited public access

- Goal is to recreate native NW forest

Mapes Creek

- Used to be fish-bearing, currently portions of the creek are piped

- Need to minimize/control sediments that fill the Garden's ponds

 - Log weirs, large woody debris

- Upper pond in the Garden is maintained yearly to control silt

- Need to know if stream turbidity is an issue

The Hammer (western portion of the property)

- Appropriate for nursery or laydown yard?

- Access and level connection to 51st Street

Wildlife

- Survey/census of wildlife to occur on the 24th

- Have seen deer and coyotes in the natural areas

- Can hear woodpeckers and other birdlife – variety of feeding/nesting opportunities

Natural Areas:

- Green Seattle Partnership – restores forest land in Seattle to create healthy forests, focuses on community engagement

- Earth Corp through GSP will be hosing events removing invasive species, erosion control, etc

- 150 volunteers for these events are easily accommodated with existing parking options/access in area.

- Keep natural area as a counter part to the more manicured garden

- Natural area is an integral part of the garden because it provides a backdrop to the garden

- Is there a way to improve legibility of the creek system, so the community can understand it as part of the watershed and water system

- Does the Garden want to provide access to these natural spaces for community as an amenity

- Maintenance of trails would be an issue as current parks trail staff not looking forward to new trails to maintain

- Limit access during nesting bird season and provide educational information of why there is limited access

- May 24th the Audubon will be hosting a wildlife survey

- Foundation wants to purchase missing pieces in North Natural Area Acquisition. The Mapes

- Creek runs through the property and there is a natural dam with waterfalls.

“Hammerhead area” (West of Mountainside)

The hammerhead of the garden (west of mountainside) could be turned into natural forest but currently it is all ornamental and would be starting from scratch

Lisa mentioned the potential to use it as a nursery for The City.

Easy access on 51st

History on site of a working nursery

Possibility to move maintenance offices here, but access to the most intense parts of the garden is better at current location

Historic sentiment was that the Garden required 20 acres, so with the use of the hammerhead as a city nursery, Don proposed taking some of the land from the natural areas to supplement the acreage to maintain 20 acres of garden. Al says maintaining exact 20 acres is not a concern.

If a nursery is developed, how do you protect conifers to protect viewsheds and background

Limit the intensity of the nursery use to maintain feel of the mountainside

Session Five: Sustainability, Vegetation & Wildlife

Summary: Kubota Garden is a living organism that has a unique cultural and landscape history not found anywhere in the Pacific Northwest. Yet as a living organism parts of it are collapsing, such as the Bigleaf maples, and affecting portions of the Garden. The preservation of the Garden should seek to find balance of visitor safety, historic plant materials, and designed spaces. Where will the Garden's canopy and understory be 20, 50, 100 years from now? How can the master plan guide succession plantings that fulfill the Kubota vision? The Natural Areas will continue to be improved into a functional wildlife habitat and provide the green backdrop for the Garden. Understanding the current and future staffing needs will be addressed as part of the master plan.

Primary concern is for visitor safety

Ideal is for a healthy tree canopy, canopy cover

Bigleaf maples are in decline

Striking a balance of preservation – preserving historic trees where possible

Occupancy levels and locations determine level of care around the garden

There is a work order process for tree removal, but no plant policy (the Arboretum Master Plan outlines a plant policy)

Another consideration is aesthetics – which trees visually contribute to the Garden's mission?

Scott Baker is providing a preliminary tree assessment

What is the collections policy?

Need an inventory of Plants and trees based on being historic or special.

What are the aesthetics for replanting/replacing major vegetation elements? What are the timelines that need to be considered?

The nursery plantings would come and go as the Kubota's ran their business. How is that being replicated today? Iain Robertson noted that "it was a drive-through nursery that was suddenly frozen by the roll of history's dice."

The nursery plantings were the dynamism that made the garden so intriguing to today's visitors. It was a working nursery that has developed over the past 50 years into wild crazy spaces so unique among public gardens

Portland Japanese Garden has both a garden curator and a garden committee that is tasked with maintaining the history and character of the garden while adding to it.

Don has replicated the nursery planting with rows of maples (including gaps) at the Terrace Overlook

Would an adaptive maintenance/management approach work here? Prioritize invasive and native plants that are affecting the garden plants...similar to native tree removal at the Arboretum to let light into the plant collections

What should the design effect be with future plantings?

What role should climate change play in plant selection and garden layout? Increased watering, new pests, new invasive plants, changes in the water table

Hazard trees should be identified and a replanting strategy determined prior to removal.

Identify areas where new nursery stock can be planted – increase access to existing areas (dancing pines, contorted filberts)

Develop a collections database – acquisitions since 2004 are recorded

Storm damage assessment – need to close garden after storms to assess and address any damage

Need a succession plan for trees – the golden locusts at the terrace overlook

There is an element of chance to the garden – accidental/advantageous plantings that hint at a passivity to the growth of the vegetation

Acquire the ISA dataset for tree failures (Chris Poppy) to further identify potential hazard trees

Define the design intent for areas of the garden

Let the garden continue to evolve with limited interventions (preserve and replace in kind)

Selectively edit the garden to eliminate invasives/high maintenance plants (Portuguese and English laurels, pines)

There are hidden rockeries in the garden – expose and interpret?

What are the major viewpoints: long views, framed views, spatial views, surprise views

Remember that the garden was a sales floor, nothing was sacred if it could be sold.

The garden is viewshed orientated

Get away from the nursery stock idea

Need both physical and visual resting areas

Need careful editing of the existing cherries and trees to maintain the select views

Maintain green systems infrastructure – canopy coverage

Solar Signage Kiosk

Want visible and mindful sustainable systems

When applying systems beware of “green washing”, think of maintenance and long term sustainability: material life span, enforce punchlists to ensure designs are implemented correctly and comply, emphasize maintenance in design.

Stormwater:

Stormwater detention to prevent filling creeks, and process stormwater on site

Plant conifers near street to slow stormwater

Irrigation:

Many places are having issues with established trees that require more water than currently provided with changing climate (such as cedars)

So far no change in garden due to climate change/strain; temperature not fluctuating enough for concern. The use of water has been relatively low for a garden.

Disease has not been an issue in the garden, because if a tree is truly diseased they will remove it to preserve the rest of the garden. (nothing is sacred/untouchable)

Currently most of the garden is hand watered with hose bib access or automatically controlled irrigation systems in the Stroll Garden and Terrace Lawn and Entry Lawn. Maintenance keeps a chart of what’s been watered and when, which provides a specialized understanding of water needs in the garden per the climate of the time.

Because of this, the garden team does not believe the smart controller Maxicon system would be appropriate in the garden, as the tailored manual watering has reduced water usage and is tailored per the gardens’ needs.

Look at rainwater catchment systems to supplement irrigation, though during the weather when you need those systems the rainwater may not be available

There are trees that take more water currently in the garden such as katsura and maples, but they are within the plant palette of the historic Garden and would like to maintain that. The gardeners do not intent to change the palette to xeriscaping to reduce water usage

PJG analyzed locations to irrigate to help staff maintenance

Kubota Garden could employ 1 full time person to irrigate and mow as full time job

Invasive Species: Examples of Black locust and portugese laurel

How do you replace? Do you replace in kind or with like?

Look at maintenance, vs aesthetics, vs diversity of plant collection

Currently do not use insecticide. If something is diseased they will remove and replace

WORKSHOP SUMMARIES

Soil Health:

- Improve their own soil by mulching

- Keep some dead trees for nurse logs, snags, etc for composting for soil health, life cycle education, and plantlife/wildlife habitat

Restrooms as composting?

Non-vehicular transportation to the Garden:

- Bikes: There are currently 4-5 spots available on 1 bike rack for the garden.

- Can there be a connection from the Chief Sealth Trail?

- Is there a local bike masterplan for the area?

- Pedestrian access is mostly local

- Buses are not frequent enough to encourage pedestrians

- Location of bus stops situated equidistant from the entrance, could be relocated adjacent to the entrance to reduce 2 stops to 1

- Lightrail is 1 mile away uphill – could encourage planned visitors with a shuttle – such as with senior or children’s groups

Sustaining Character of the Garden: How to maintain the character of the garden with demands of codes and regulations

Accessibility in the Garden:

- Do you pave the garden to approve accessibility? What will you lose? Paving would provide less maintenance but could change character in the sound and feel of paths.

- Increasing width of paths for access – Could change character of more intimate paths and interaction with plants.

- Need to find balance between accessibility and character

Session Six: The Garden

Summary: Understanding the major experiential components of the Garden is critical in order to maintain and build upon the Kubota Garden vision. The Core Area is the gem of the property and has a rich history that offers many interpretive opportunities. The 1990 Murase Plan preserved the Core Area while expanding into new areas of the property. Some of these expansions have been built (terrace overlook, the wall, the parking lot, while some have not. Some areas of the garden were penciled in for future development that has not occurred, such as the tea House and the Memorial garden. Another pass and discussion of all the Murase elements needs to occur as part of the Master Plan update. This could be handled by the KGF in collaboration with SPR. Another key issue raised in this session was maintenance and maintenance priorities. There will be a follow-up with garden staff to understand the maintenance calendar.

What are the significant elements of the Garden?

Stones

Historic Core

The water (ponds, waterfalls, and stream)

The wetlands

Significant (historic) trees

What are non-significant elements?

The straight road adjacent to the future great pond area was intended to be curved, this impacts the garden experience and should be corrected as part of any future work in that area

What are the Maintenance Priorities?

Significant trees

The Pines are considered high-maintenance with cost implications, should they remain a priority concern? Pine pruning is an essential element in creating a specific character to the garden. What is it worth to the visitor?

Turf issues – visitors need green (irrigated) turf areas that are well-drained, needed for weddings and other events

Ways to quickly resolve irrigation issues – plumbers union must do the work.

Areas of low maintenance to allow focus on higher maintenance areas to maximize staff expertise

Side Topics

The Murase Master Plan called for a memorial garden space, should that be included in the update?

Issei Pioneer Memorial, a contemplative space

Memorial at entry?

Review the aerial photographs from 1930

Review the property acquisitions in Murase Master Plan

Historic Outline – is not necessarily the core garden as it was created by a developer preserving the neighboring development's views – this outline can be changed to more closely reflect what is considered the core garden

What is the Core Garden?:

- Necklace of Ponds
- Mountainside

WORKSHOP SUMMARIES

- Japanese Garden
- Terrace Overlook Structure + Spring Pond
- Stroll Garden
- Gate Entry and view from Entry Overlook

Document what elements make these spaces Core.

Backdrops, light, circulation, etc

Document significant areas available for development. What is next to develop in the garden?

New Garden Development:

3 Restrooms – look at visitor center capacity

Drinking Fountain/Bottle filler station

Bell Structure

Areas:

Great Pond

Define that space's character (does not need to be literal pond)

Maintain truck access

Straight road was a mistake

West of Mountain Side

Nursery

Maintenance

Event space

Entry

Terrace Lawn

Master Plan Elements Not Incorporated:

Tea House – not important

Specialty Gardens – not needed because it was accommodated at the Arboretum

Issei Pioneer Memorial – (Not WWII Memorial as indicated in Murase Master Plan)

Contemplative space for visitors to connect with the story of family without a tour guide

Keep the concept for memorial but not location at the Terrace Lawn – if there is an

event on the lawn visitors may still want to visit it, so locate it where any visitor can see

it.

Staffing: Need more staff to maintain the garden.

Lisa – The Japanese Garden in the Arboretum has 3.85 acres and 4 staff, this is not normally the case/standard because the maintenance expectation is high.

Cheryl – PJG has 12 acres with 7 full time garden staff. Maintenance expectation is also high and they still struggle with maintenance. She suggests 10 full time gardeners to maintain Kubota at a high standard.

Don- Suggests 5 full time staff could maintain the garden

Look at what would suffer without more staff

How can the Foundation gain more staff without losing the Park's staff that is already allotted

Interns could be an option, but need to supply stipend and preferably housing

Look at maintenance of plant palette and maintenance versus aesthetic

Admissions would allow the Foundation to request more staff, but would also drive higher demand of expectations and maintenance.

Increase visitorship and events would require more staff

Maintenance Reduction:

PJG- Volunteers can help with things like leaf pick up and if they are repeat volunteers with experience they can help with more intense jobs like pruning. Volunteer coordinator organizes

with gardeners on where they need help and the gardeners give an orientation and work with gardeners.

Most intensive maintenance items include paths, buildings, some plants, lawns. There is a sentiment that Kubota's lawns are the community's lawns.

Session Seven: The Garden, Partners, & Stakeholders

Summary: The core mission of the Kubota Garden initially was to open the garden to the community as a place of gathering. It is called 'the People's Garden' and is in the middle of the most ethnically and economically diverse zip code in Seattle. The Garden wants to be as inclusive as possible and continue to serve as a neighborhood gathering space. Identifying partnerships and stakeholders is fundamental to the continued growth of Kubota Garden. Resolving the future partnership ideal will be key: is it status quo, joint partnership, or KGF operated/city owned? Examine what is needed to financially sustain the Garden and the Garden's mission in terms of admission, maintenance expectations, and visitor amenities.

What are the best practices for public facilities with private partners? What are the pitfalls?

Partnerships:

Currently there is support within Parks to develop public private partnerships and there is currently a good relationship

Contracting with The City would look at becoming "concessionaires". There will be a financial exchange of a percentage of fees to be negotiated and Parks will maintain shells of buildings and "outside"/garden.

Three Partnership Options:

Status Quo

Joint Partnership

Foundation Takes Over

Partnership could change in case of new development projects.

Foundation would have larger role in building and management and funding

Foundation needs to think about how they want to partner and operate in the future as there is a growing gap between what Parks is able to do/fund and what the Foundation wants to do.

There needs to be a strong Foundation to raise money.

Look toward partnerships with other neighborhood and community groups to partner with such as Rainier Beach Action Coalition and how do you play to the strength of different community partners

Mission:

Historically the core mission of the garden was to open the garden to community and families for gathering

Community Resource as "The People's Garden"

The Garden has been around for a long time and open to the public

Outreach to community to understand desire to maintain community access as a "neighborhood garden"

This is the most diverse zip code in US and Parks does not want to be the source of excluding the community

Early on PJG was meant to serve the community for free, but couldn't succeed at their mission without income. Started with 2-3 free days a month (6,000 visitors). Still try to involve neighbors with brunches and collaboration.

Providing opportunities for community to engage with the garden

Volunteering- though volunteering is a luxury that some community members cannot sustain financially (Could there be a small stipend that could be tied to internship?)

Providing events to connect to community

Use the Garden as a teaching tool

- Environmental – not using pesticides

- Cultural Teaching

- Behavior Teaching – how to act in a garden

- Resilience – Kubota Family Story

- Conscious Spirit

- Theme of Community Resiliency

- Could express what the community is

- Who are the people that use it

- How do you honor how people have claimed and shaped the land

- Respecting the non-programmed space as processional experiences

Mission Events – as long as visitors can have a good experience while events are happening.

Currently no community based events but would like to hold some in future. See past notes on current Foundation events held in the garden.

- Reluctant to have reserved private spaces which would prevent moving through the garden

- Over privatizing events could lead to perception of not a public garden

- Need to consider benefits of rental fees and negotiations with the City and Foundation

- Specific ticketed events could help bring in revenue like BBG's Garden D'lites

Need to look at what is needed to sustain The Garden and Mission

Admission?

- BBG is free because numbers of visitors would drop

 - City has maintenance and custodial

 - Programs provided by Friends' Group

 - Currently stable with City support

 - If BBG were to do the Visitor center in the future they would have looked at maintenance support space at the same time

 - Friends' Group will fundraise for staff and curator

Technology in the Garden – is it appropriate?

- BBG uses QR codes in beds to access info

- Grow it App –pushes out info on the garden to phones

- BBG also has public access kiosks and physical printed copies for people who do not have devices

- BBG needed to get a Federal Grant to inventory stewardship collections/background and then another grant to create the tools to educate

Marketing – Garden as a secret place is good for community asset feel, but not if it wants to attract more outside visitors. How to balance branding vs gentrification

Future – self driving car drop off? Maybe 10 years out

Garden Capacity – establish a carrying capacity to preserve visitor experience and preserve and serve primary visitors

Session Eight: The Visitor Center Building Program

Summary: The 1990 Master Plan developed a number of buildings that were based on uses generated through public meetings. The resulting plan for the visitor center was conceptual. It focused on the idea that this was Kubota Garden, not Kubota Building Garden – the buildings are subservient to the Garden spaces. The on the Welcome Center-Visitor Center would house a number of visitor amenities as well as possible KGF offices and a multi-purpose room. Input from the Portland Japanese Garden raised two interesting points: 1) They have no rental venue and focus on mission. Only able to focus on mission events because admission pays for it. 2) Each space has to further the mission of the Garden to get funding. The concept of the Visitor Center as a cluster of smaller buildings around a courtyard, that can be built over time, helps the buildings fit snugly into the garden’s landscape.

Background on the Murase Master Plan’s Visitor Center - Anyo’s description– Uses generated from public meetings. Foundation had just formed, didn’t have a building at the time; used the building’s basement. The design was just conceptual but was meant to function like the house did.

The wall is not sacred

Small buildings to fit into site and look out to garden

The Garden is a garden, not buildings, so the building elements should not be statement pieces. They should blend into the Garden.

Entry:

Entrance could be shifted to Stroll Garden for accessibility

Plan for future ability to charge admissions.

Large building at the entry is not desirable because you want to enter the garden, not a building.

Visitor Experience, what do you see? How do you orient?

Welcome Center/ Visitor Center Programs near entry. The main portion of the building should look into the garden. Program could include:

Interpretive historical element

Gift Shop/concessions, Information

Bell Display,

Ticketing

Reflective Space

Restroom,

Meeting Rooms

Offices (depending on proximity of admin offices on site)

Multipurpose room or meeting space: Could be in Visitor Center or out in site:

Multipurpose room should be able to handle multiple activities (flexibility). Most people want to be outside, so look at indoor and outdoor spaces. Maybe the capacity can be increased by including covered outdoor space. Suggestion of 2 separate buildings/spaces with an exterior court between (interior spaces can be used separately or opened up to include the outdoor space to increase capacity).

Can you divide a large meeting space into smaller space with a divider? Will this work well?

Concern that 150 people may overwhelm site. Though unlikely as there is currently 150 person wedding capacity and 150 volunteer events capacities at the Garden.

The concern is more for congestion at entry if gathering space is directly next to entry. However, the gathering space could be set back, to prevent congestion.

Rental of space could help fund programs to further the Garden’s mission.

Want to focus on mission events, not weddings, but the Garden may need fees to fund mission based events.

Café/Concessions:

How can you draw people to the garden? With coffee, food, restaurant, food truck, etc?

Could provide income and opportunities for community employment.

Admin offices on site but not necessarily up front at entry

Maintenance area could have a building for admin offices

Want to be able to bike to work and not have to drive to and from the offices and Garden.

Breakroom for volunteers.

Intern housing on site

Question about PJG business model – 2/3 of admission fees pay for the garden. They have no rental venue and focus on mission. Only able to focus on mission events because admission pays for it.

Each space has to further the mission of the Garden to get funding.

Looking at the whole Garden as options for Visitor Center Locations or Programs that could be associated with the Visitor Center (not just existing Entry):

Look at the whole site to explore opportunities to site program

Could the space west of the mountainside be used or the Fera Fera Forest?

Spreading/dotting structures throughout the garden could help with wayfinding.

Could you site some of these elements outside the garden to not disturb the garden, such as at the maintenance area?

WORKSHOP SUMMARIES

Session Nine: Admission

Summary: This session focused on the pluses and minuses of Admission. It centered on three main issues: 1) What visitor amenities are needed to activate an admission process? 2) What are the neighborhood impacts of admission? 3) If admissions are charged, a higher level of maintenance (and increased staffing) would be required as visitor expectations would be higher. Discussion focused on the neighborhood impacts, such as offering free days, reduced fee days as well as the type of visitor amenities (restrooms, café, visitor center, secure parking).

The attendees were divided into two groups: Pro-admission and against admission and asked to detail the pluses and minuses of each position

What visitor amenities are needed to activate an admission process?

What are other items that the 20-acre garden requires that would need the revenue generated from an admission charge?

Revenues would support the Garden's mission

Look at admissions only during peak times (weekends, summer)

Need restrooms!

A fabulous experience lasting a minimum of 60-90 minutes

Dedicated programming including performances, demonstrations, tours

Job creation

Excitement of new projects increases growth in attendance, increase in memberships

At Portland Japanese Garden, currently 17,000 members paying min. \$55 (+\$935,000) – benefit is free admission. Membership benefits need to be commensurate to cost

If admissions are charged, a higher level of maintenance would be required as expectations would be higher

Kubota known as the "Scrappy People's Garden"

Green spaces and gardens are increasing in value as places for relaxation and reconnecting to nature

What are the neighborhood impacts of admission? Do first Thursday free days similar to museums?

Kubota Garden will Charge Admission Scenario:

Pros:

Money to support garden maintenance and mission

Admissions pays for operations, not for capital campaigns but it will building membership to help with capital campaign funding.

Access to members willing to donate to fundraising could help fund building projects to further mission

Admission would be an incentive to be a member

Membership prices could be provided at reasonable price and would building membership and building in group to ask for future fundraising

Could support community access with:

Public Assistance Pricing

PJG only charged during highest attendance months at first; another example some gardens only charge on weekends

Increases attendance on free days

Would need to meet high visitor expectations for experience, maintenance, restrooms, programs and education, gift shops, café, etc
 Could bring in educational job creation
 Idea that price equals quality/inherent value
 Trend is that green spaces are desirable so people will pay to access
 PJG's true core garden was not disturbed in the renovation/development and didn't degrade or develop natural environment
 During events it will make people go through the garden because they will want to see it all because normally there is a charge
 People will be encouraged to get permits for events and photography
 Self sustaining financially and maintenance
 Increase in programs

Cons:

Public sentiment could decline and lead to vandalism.
 Still need to fundraise because the Garden can't be fully sustained on admissions
 High expectations for maintenance and experience
 Increase in staff
 No free access for all

Accessory Spaces/Needs:

Restrooms:

Bob talked about prototype restrooms with units that can be opened as needed or locked. Can be used with Park's remote security locking system.
 Could be a combo of permanent restrooms and sani-cans
 Research eco-restrooms – self cleaning
 Investigate next to gate or near lower gate for locations

Drinking Fountains or Bottle Fillers

Maintenance Crew Quarters phase 2:

Containers full of tools, need the 2 more bays that were designed but never built to accommodate tool storage. Current 2 bays are adequate for 6 staff.

Concessions – requires restrooms and hot water – good trucks would require hook ups

Gift Shop – could sell plants

Transit Access to Garden:

City bus comes every 30 minutes
 Bike access
 1 mile to lightrail station
 Full parking lot, so look at secondary parking with accessible access

Secondary Parking/Overflow Parking

Golf Cart Storage for accessible transportation in emergencies

Do's and Don't List for visitors information

Lighting: Would like some lighting at least for security and potentially for future event spaces because there is no lighting in current Garden – streetlights but not in parking lot, none at gate

Only lights are at Crew Quarters, they would like more light as well

Solar motion activated lights in parking lot

Language-translations for visitors

Emergency Supplies throughout garden

Develop materials and plant palettes

OPEN HOUSE SUMMARIES

Kubota Garden Public Open Houses, June 17th and June 23rd
10am to 2pm both days. Weather warm and sunny on the 17th, cool on the 23rd

Zip Code	# in Group	Garden Visit		Comments	café/tea house	visitor center - gift shop	restroom	external wayfind signage	internal wayfind signage	interp - plant signage	garden quality	light rail/cheef sealth	Charge money	drinking fountain	garden events	garbage cans	parking	seating		
		1 to 2	3 to 5																	
Sunday, June 17																				
98056	3	1		no café bathrooms!! getting to the garden was difficult - need more road signs ponds were murky loved the klo pond; go lost- need better maps; so big; charge money; restrooms; less lawn; more than one place for restrooms; fabulous			1													
98208	5		1																	
98056	3		1					1												
64152	2	1																		
98103	4	1							1				1							
98188	2	1																		
97008	2	1		better directional signage; variation in height of plants; more openness; need trail signs - can't tell if I am seeing everything					1											
98055	1	1		restrooms that are open in winter; tea house with snacks; drinking fountain in lower garden; emergency phone																
98178	1		1	label specimen plants; liked different colors and mixture of textures; real bathrooms; exit signs																
91711	4	1		would like a defined route from light rail station and a connection to Chief Sealth trail																
98118	2		1	just came for a quick tour																
98059	4	1																		
98303	2		1	drinking fountains; use recycled water in new restrooms; like the idea of food trucks no café, it would take away from the experience unless in parking lot; would support a snack shack																
98118	1		1	murky water, toured about 50% of the garden, too hot																
98122	2	1																		
98052	4	1		café now! Art installation - remembers the pianos in the park, bridges over the water were peaceful																
98033	3		1																	
98007	4	1		looks nice																
98015	2	1		visitor center and gift shop; shade/covered areas for seating																
98103	2	1		wayfinding - got completely lost																
98188	3		1	would like minimal specimen signs, bridge over creek, visitor center with plant display table similar to Arboretum visitor center																
98144	4		1	bathroom, café. Connection to Chief Sealth trail; shuttle bus from light rail; interpretive signage to show history and plants																
98115	2	1		café at overlook; nice side trails; bathroom; bloomy/ color times on website; nice garden - not as intensely structured as Bellevue Botanic.																
98168	4	1		more garbage cans																
95843	5	1		direction markers - felt like we were going in circles; café for drinks																
98166	3		1	more signs, more direction, plant signs, water features were nice																
98117	2	1		integrate wayfinding into boulders - more visible and frequent; love the natural lived-in feeling; more trash cans for dogs; healthy looking; impressed at level of maintenance; grate paths for ADA - but no paving; is there anyway to address the audio quality of the garden to block out the airplanes?; no standard signage - signage should match character of the garden (respondent is an architect)																
98102	37	1		(large silk group)																
98168	1		1	more trash cans																
55318	3	1		peaceful																
98178	1	1		loved the baby ducks; got so lost																
98103	4	1		café/ice cream truck at overlook; baby changing station; loved the stone garden, bridges, and stroll garden; at top of waterfall open up the view more																
98103	2	1		need more headroom at paths (guest was 6'-8"); different ground plane surfaces at pathways; consider repurposed materials for trail edges (roof tiles)																
98117	3		1	very nice; bathroom; drinking fountain; more pruning; more locations for maps; getting lost																
98106	1	1		bathroom; more placards, tours																
67005	1	1		drinking fountain; more parking; café; liked seeing people																
72719	1	1		drinking fountain; more parking; café; liked seeing people																
98118	2		1	drinking fountains; toilets; plant guide; better wayfinding; anything new needs to be respectful																
98055	7	1		more Japanese objects/symbols; tea house; better signage; better map																

Kubota Garden Public Open Houses, June 17th and June 23rd 10am to 2pm both days. Weather warm and sunny on the 17th, cool on the 23rd

Zip Code	# in Group	Garden Visit					Comments	café/tea house	visitor center - gift shop	restroom	external wayfind signage	internal wayfind signage	interp - plant signage	garden quality	light rail/chief seath	Charge money	drinking fountain	garden events	garbage cans	parking	seating
		1 to 2	3 to 5	6 to 10	10 to 20	20+															
98144	2	1				vision reminds me of Bellevue Botanical; café with overlook chairs at the overlook to sit on	1						1							1	
19008	4	1																			
98188	3	1				bathroom			1											1	
98155	3	1				bathroom; chairs at overlook			1											1	
95650	1	1				bathroom; chairs at overlook			1											1	
59870	2	1				bathroom; chairs at overlook			1											1	
95037	2	1				more drinking fountains; plant tags; picture ID boards for plants			1							1				1	
98103	2	1				bell clapper; restroom; bike lock/bike rack (bicycled from Beacon Hill to garden); love the plant sales			1								1			1	
98118	3	1				cameras in parking lot			1											1	
98115	5	1				waterfall not working			1				1								
98118	3	1				cameras in parking lot (tourist group whose car was broken into)			1											1	
46511	5	1				restrooms, café/kiosk; poetry in the garden			1											1	
98136	1					more benches, place for drinks; it is so beautiful			1											1	
98327	3	1				make it cooler (too hot)			1											1	
96782	3	1				more wayfinding, clearly defined garden areas, more restrooms			1				1							1	
98118	4	1				restrooms; wayfinding			1				1							1	
92113	12	1							1											1	
90006	4	1							1											1	
98188	1				1																
98056	2	1				got lost														1	
98144	2	1				got lost but didn't mind														1	
98037	5	1																		1	
98037	4	1				need wayfinding; restrooms. Heard about Kubota through friend's facebook page														1	
98188	4	1																		1	
Brit. Columbia	30	1				got lost														1	
14850	5	1				need updated restrooms			1											1	
98188	2	1				came through side gates; didn't know this was Kubota garden														1	
	256	45	4	3	5	9	16	2	16	2	17	6	14	1	2	6	3	3	4	5	
		66				groups total	24.24%	3.03%	24.24%	3.03%	25.76%	9.09%	21.21%	1.52%	3.03%	9.09%	4.55%	4.55%	6.06%	7.58%	

OPEN HOUSE SUMMARIES

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Zip Code	# in Group	Garden Visit		Comments	café/tea house	visitor center - gift shop	restroom	external wayfind signage	internal wayfind signage	interp - plant signage	garden quality	light rail/Chief sealth	Charge money	drinking fountain	garden events	garbage cans	parking	seating
		1 to 2	3 to 5															
Saturday, June 23																		
98118	30	1		ballinese wedding group, restrooms at Terrace Overlook			1											
98115	26	1		large wedding group, long limo, loved the garden							1							
98117	2	1		edible plants, tea room to allow people to spend more time here	1													
98241	2	1		got lost a little bit, rock markers were helpful, loved it					1									
55101	2	1		map would be nice, likes idea of getting lost, would like to be able to get lost, great stop before flying out					1									
98402	5	1		more wayfinding, swans, banana tree would be cool					1									
98118	4	1		plant id tags, got lost, better maps, garden labels that match map					1									
32803	2	1		loved it														
98103	3	1		more seating and signage			1				1							1
98466	4	1		arrows for wayfinding, got lost, narrow pathways, signage to restroom					1									
98144	5	1		don't change anything, more trash cans, remove holly, liked the hobbit garden, liked stones and turtles, liked variety of evergreen trees					1									
98226	2	1		add a Torii gate, need little directional signs, plant id tags					1									
97206	4	1		loved it														
06883	2	1		learned about garden via google maps, loved it!				1										
59602	3	1		plant tags, tree map, map for flowering stuff, really wonderful garden														
98198	5	1		number to number on map would be helpful, got lost, liked the koi					1									
98118	5	1		it would be nice to know where the maintenance road is vs. the trail (walked through the maintenance yard)					1									
98011	2	1		add gravel path and bench at south side of spring pond					1									
98178	1			1 sitting rocks along path, bathrooms			1											
98155	1			restroom in lower garden, liked the 'no signs' look - freedom to explore, drinking fountain, trash cans, more animals/koi, plant id tags, what's in bloom table			1							1				
98102	1			restroom in lower garden, liked the 'no signs' look - freedom to explore, drinking fountain, trash cans, more animals/koi, plant id tags, what's in bloom table			1							1				
75248	2	1		restroom in lower garden, liked the 'no signs' look - freedom to explore, drinking fountain, trash cans, more animals/koi, plant id tags, what's in bloom table														
98424	4	1		map should highlight garden features - waterfall, ponds, bridge, more signs					1									
26378	2	1		bathroom and better wayfinding					1									
98118	1			wayfinding to the garden; café; restroom, parking, garden is gorgeous														
98118	1			better access from 51st, restrooms					1									
98178	1			concerned about winter use with lack of lighting														
98178	1			curious about accessibility & features above the mountainside near dancing pines														
98136	2	1		restroom, trash cans, love the secret paths and self-discovery														
out of town	4	1		got slightly lost, need wayfinding, would like plant id on site														
76502	6	1		love the koi pond, provides inspiration														
98144	3	1		more directional signage, better bathrooms, café, more benches with water views														
19063	1	1		more directional signage, better bathrooms, café, more benches with water views														
98178	4	1		more garbage cans, possibly dog poo bags (they were NOT dog owners)														
98108	2	1		more drinking fountains, no fees, eco-friendly, food concessions														
98008	2	1		a few additional (subtle) wayfinding signs especially at lower end of garden														
98118	1			kitchenette for weddings														
98178	2	1		maintain edge access, love the wall														
98118	2	1		restrooms, clearer pond water, more benches with views														
98133	1	1		more seating that's natural to park, appreciate more benches and picnic spaces, restroom														
98118	3	1		feels overgrown-adds to feeling of getting lost, garden is amazing! What a peaceful gem in south seattle! The garden would benefit from defining a mix of special contemplative spaces and more intuitive active family spaces. Check out Capetown Botanical Garden as precedent. At Terrace, more formal seating - it feels like an empty stage. In general the planting feels overgrown, and a bit crowded. Mid-story could be pruned to show more plant form, allow in more light, and most importantly open up site lines. (landscape architect with Trust for Public Lands)														

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	1 to 2	3 to 5	6 to 10	10 to 20	20+																

Need a tree management plan with focus on: risk assessment, tree appraisal (as an asset to the park), replacement & mitigation. Integrate natural area management into the garden design. Need social media saavy. Tree risk assessment in natural areas - use of pesticides in trunk may affect volunteers. There are open gates north of Kubota Garden condos. Look at purchasing Mapes Creek easement at Arnerinor project site north of garden. Look at purchasing church property (in-holding of natural area) for future use of parking, maintenance.

152	27	5	0	3	7			6	0	13	2	15	6	5	1	3	0	4	0	8	
	42	groups total						14.29%	0.00%	30.95%	4.76%	35.71%	14.29%	11.90%	2.38%	7.14%	0.00%	9.52%	0.00%	19.05%	
Two-day totals																					
408	72	9	3	8	16			22	2	29	4	32	12	19	2	9	3	7	4	13	
	108	groups total						20.37%	1.85%	26.85%	3.70%	29.63%	11.11%	17.59%	1.85%	8.33%	2.78%	6.48%	3.70%	12.04%	
	408	visitors total						20.37%	1.85%	26.85%	3.70%	29.63%	11.11%	17.59%	1.85%	8.33%	2.78%	6.48%	3.70%	12.04%	

3.77 average group size
 332 first time visitors
 67% of groups were first timers
 8% 3-5 time visitors
 3% 6-10 time visitors
 7% 10-20 time visitors
 15% 20+ visitors
 100%

KGF VISITOR SURVEY RESULTS

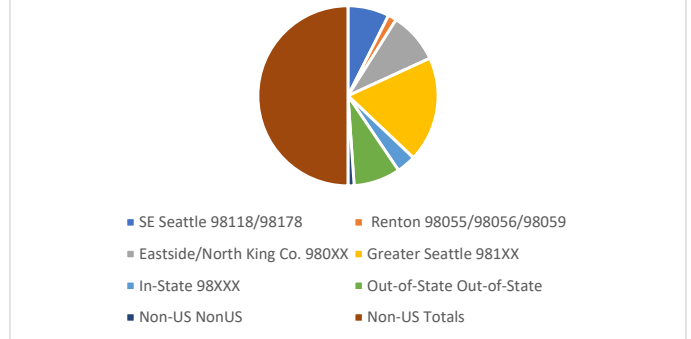
KUBOTA GARDEN VISITORS SURVEY Overview

Grand Totals

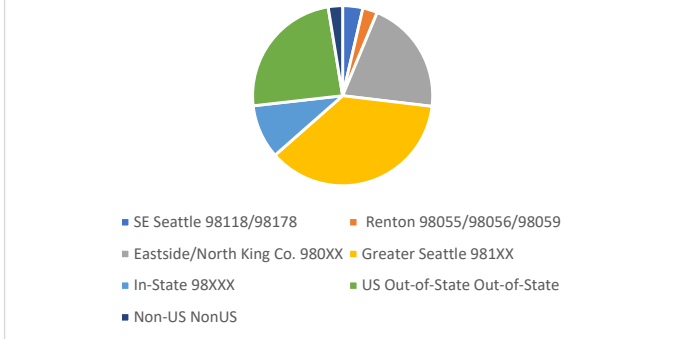
Fall 2015 through Fall 2018

Region	ZIP Code	Total	% of Total
SE Seattle	98118/98178	496	14.89%
Renton	98055/98056/98059	102	3.06%
Eastside/North King Co.	980XX	612	18.37%
Greater Seattle	981XX	1,260	37.82%
In-State	98XXX	230	6.90%
Out-of-State	Out-of-State	559	16.78%
Non-US	NonUS	73	2.19%
	Totals	3,332	100.00%

2015-2018 Surveys by ZIP Code



2015-2018 First Time Visitors by ZIP Code



Fall 2015 through Fall 2018 First Time Visitors

Region	ZIP Code	Totals
SE Seattle	98118/98178	73
Renton	98055/98056/98059	53
Eastside/North King Co.	980XX	415
Greater Seattle	981XX	737
In-State	98XXX	195
US Out-of-State	Out-of-State	487
Non-US	NonUS	52
	Totals	2,012

KUBOTA GARDEN VISITORS SURVEY
Overview

Survey Totals by Season

	Totals	2015			2016			2017			2018		
		Fall	Spring	Summer	Fall	Spring	Summer	Winter	Spring	Summer	Fall*	Winter	Spring
SE Seattle	98118/98178	29	83	41	60	49	71	39	43	36	32	13	61
Renton	98055/98056/98059	4	25	9	10	4	18	8	7	3	3	11	13
Eastside/North King Co.	980XX	56	119	61	91	34	65	39	58	25	22	42	95
Greater Seattle	981XX	99	177	108	179	96	155	110	131	72	78	55	212
In-State	98XXX	16	38	32	27	9	23	16	13	18	20	18	31
US Out-of-State	Out-of-State	52	72	98	45	18	68	80	27	18	43	38	53
Non-US	Non-US	6	11	13	6	7	17	6	1	0	4	2	6
	Totals	262	525	362	418	217	417	298	280	172	202	179	471
1st Time visitors		161	236	214	209	99	188	170	152	80	125	132	246

*Fall 2017 survey was only one day, Sunday October 22nd. The previous day's survey was cancelled because of weather.

Percent of Visitors by Season

	Totals	2015			2016			2017			2018		
		Fall	Spring	Summer	Fall	Spring	Summer	Winter	Spring	Summer	Fall*	Winter	Spring
SE Seattle	98118/98178	11%	16%	11%	14%	23%	17%	13%	15%	21%	16%	7%	13%
Renton	98055/98056/98059	2%	5%	2%	2%	2%	4%	3%	3%	2%	1%	6%	3%
Eastside/North King Co.	980XX	21%	23%	17%	22%	16%	16%	21%	15%	15%	11%	23%	20%
Greater Seattle	981XX	38%	34%	30%	43%	44%	37%	47%	42%	39%	31%	45%	
In-State	98XXX	6%	7%	9%	6%	4%	6%	5%	10%	10%	10%	10%	7%
US Out-of-State	Out-of-State	20%	14%	27%	11%	8%	16%	10%	10%	21%	21%	21%	11%
Non-US	Non-US	2%	2%	4%	1%	3%	4%	2%	0%	2%	2%	1%	1%
	Totals												
1st Time visitors		61%	45%	59%	50%	46%	45%	57%	54%	47%	62%	74%	52%

*Fall 2017 survey was only one day, Sunday October 22nd. The previous day's survey was cancelled because of weather.

KGF VISITOR SURVEY RESULTS

KUBOTA GARDEN VISITORS SURVEY Overview

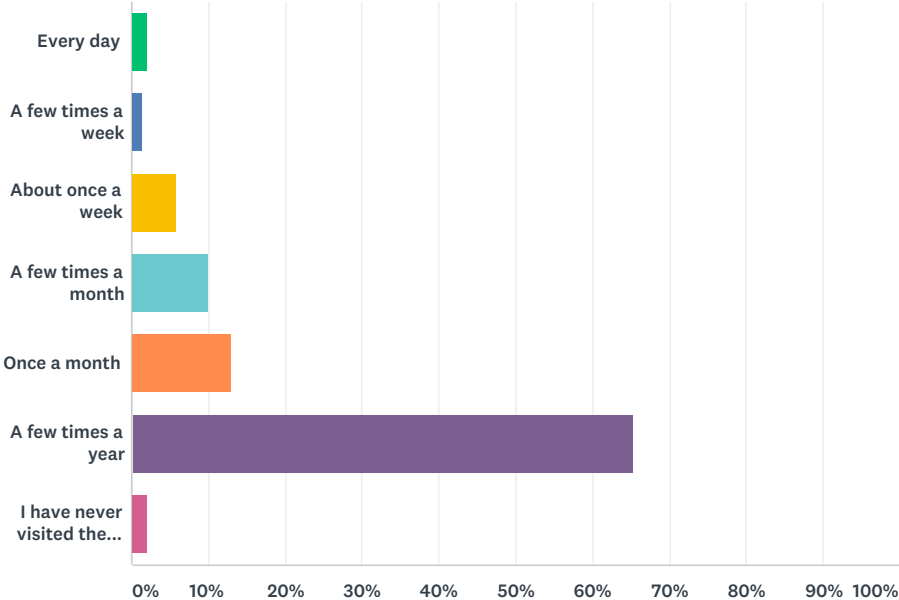
First Time Visitors by ZIP Code

	Totals	2015			2016			2017			2018		
		Fall	Spring	Summer	Fall	Spring	Summer	Winter	Spring	Summer	Winter	Spring	Summer
SE Seattle	73	6	7	4	6	9	10	6	3	7	1	8	3
Renton	53	4	8	3	7	1	8	4	1	3	1	3	8
Eastside/North King Co.	415	35	60	37	60	25	30	23	15	16	15	16	29
Greater Seattle	737	59	69	55	79	45	78	50	34	42	34	42	38
In-State	195	11	24	26	18	8	19	14	13	16	13	16	15
US Out-of-State	487	43	58	77	34	8	42	68	14	37	14	37	35
Non-US	52	3	10	12	5	3	1	5	0	4	0	4	6
Totals	2,012	161	236	214	209	99	188	170	80	125	132	152	246

Kubota Master Plan Update Survey

Q1 How often do you visit the garden?

Answered: 138 Skipped: 0



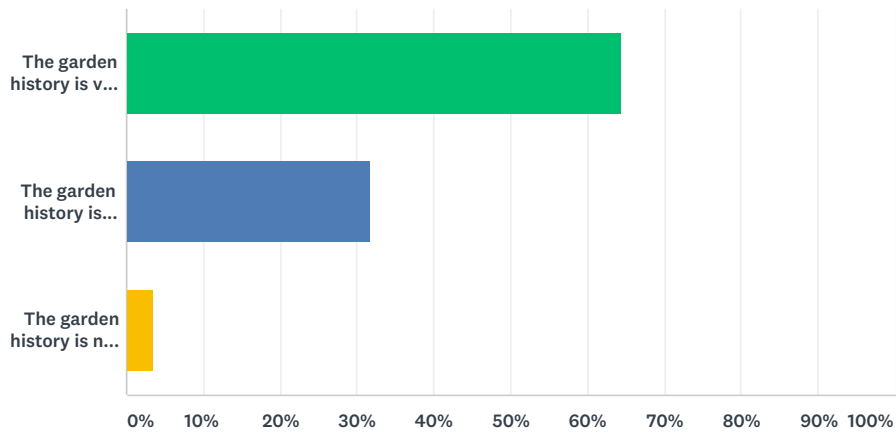
ANSWER CHOICES	RESPONSES
Every day	2.17% 3
A few times a week	1.45% 2
About once a week	5.80% 8
A few times a month	10.14% 14
Once a month	13.04% 18
A few times a year	65.22% 90
I have never visited the garden	2.17% 3
TOTAL	138

SPR ONLINE SURVEY RESULTS

Kubota Master Plan Update Survey

Q2 How important is the Kubota Garden story and history to you as a visitor?

Answered: 138 Skipped: 0

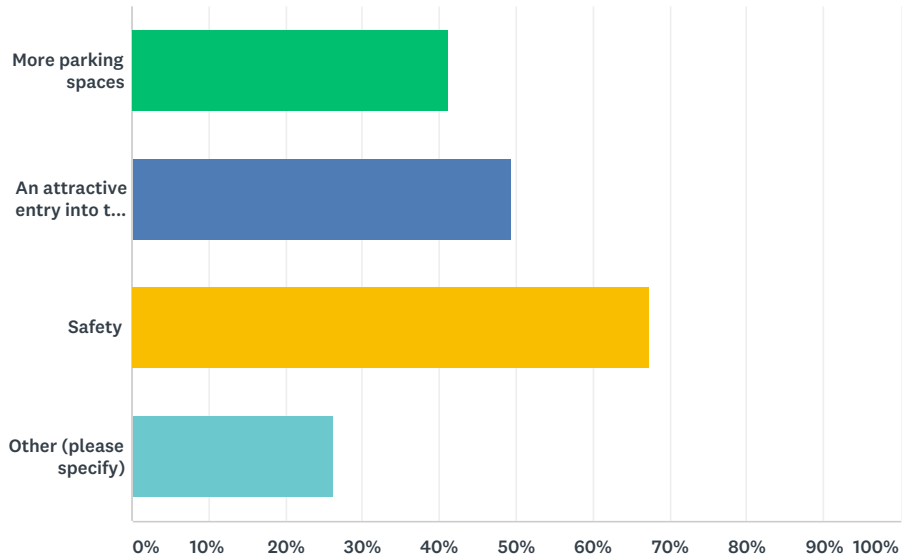


ANSWER CHOICES	RESPONSES	
The garden history is very important to me	64.49%	89
The garden history is somewhat important to me	31.88%	44
The garden history is not important to me	3.62%	5
TOTAL		138

Kubota Master Plan Update Survey

Q3 The master plan proposes changes to the parking lot and entry way. What is most important to you about this feature? (Choose 3)

Answered: 138 Skipped: 0



ANSWER CHOICES	RESPONSES
More parking spaces	41.30% 57
An attractive entry into the parking lot	49.28% 68
Safety	67.39% 93
Other (please specify)	26.09% 36
Total Respondents: 138	

#	OTHER (PLEASE SPECIFY)	DATE
1	Making more available parking while not taking away from the garden or safety, and give us an attractive entryway.	12/3/2018 6:15 AM
2	Changes do not impact garden	12/2/2018 7:34 PM
3	Better access for neighbors at a back entrance	12/2/2018 3:06 PM
4	Not sure what's being proposed, so not sure how to answer.	12/1/2018 2:27 PM
5	clearly marked entry, directions of travel, etc.	12/1/2018 12:00 PM
6	Accessibility and disability accomodations	11/30/2018 10:09 PM
7	Retaining features of and being consistent with the existing entry or gate to the park	11/30/2018 7:20 PM
8	Access for people who are not arriving by car (walking, from the bus, biking, etc.) and an inviting, open entry to the park with signage	11/30/2018 3:52 PM
9	not taking away from the garden	11/29/2018 8:43 PM
10	overall aesthetics	11/29/2018 11:14 AM
11	Security from car breakins. Safer entry and exit from the parking lot would be an improvement.	11/28/2018 3:39 PM

SPR ONLINE SURVEY RESULTS

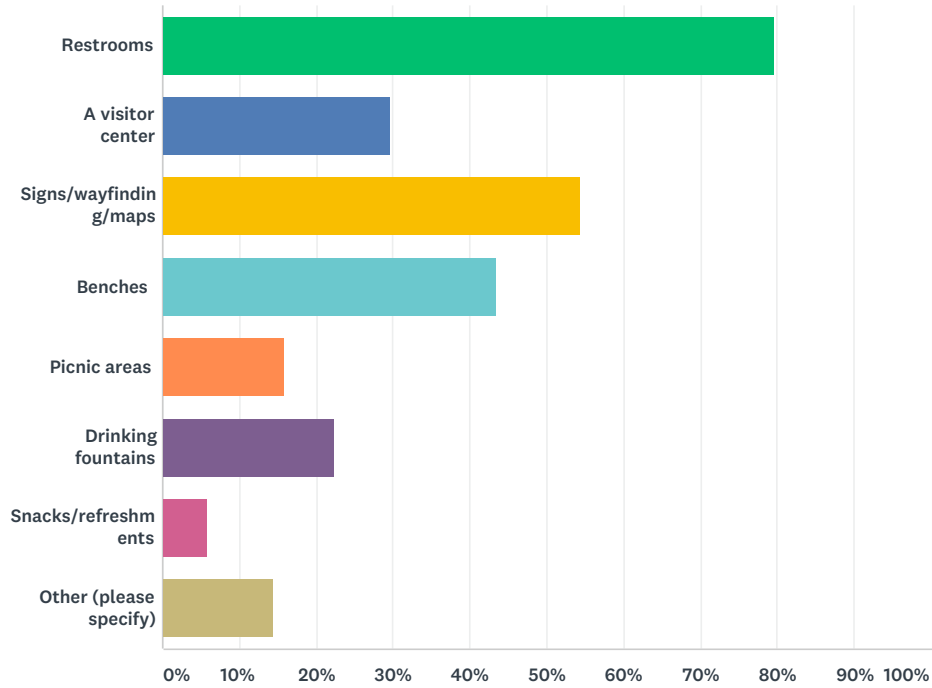
Kubota Master Plan Update Survey

12	Reduction of car break ins	11/28/2018 12:41 PM
13	The park needs to be accessible from the neighborhood, not just from a car that has arrived in the parking lot. Need to have free, accessible, public entry points on three sides of the park. Improving the neighborhood access into the park will support more people accessing the park on a more routine basis which will reduce the parking need and improve a sense of safety.	11/28/2018 7:00 AM
14	I've never had a problem parking in current Kubota lot	11/27/2018 10:54 PM
15	safety first.	11/27/2018 8:43 PM
16	Clearly marked entrance	11/27/2018 4:43 PM
17	Better security.	11/27/2018 4:32 PM
18	accessibility for those with limited mobility	11/27/2018 4:27 PM
19	That the lot is designed in such a way that it feels like another part of the gardens, and not like a dead space.	11/27/2018 4:02 PM
20	Restroom facilities would be welcome!	11/27/2018 2:33 PM
21	The parking area and entry set the mood for entering the garden.	11/27/2018 2:07 PM
22	N	11/27/2018 2:01 PM
23	Bicycle parking	11/27/2018 10:00 AM
24	wider stalls	11/26/2018 2:28 PM
25	vehicle security	11/14/2018 3:04 PM
26	Keep the kiosk. It's fun info.	11/9/2018 12:31 PM
27	Safety is the 2nd most important thing.	11/9/2018 5:12 AM
28	Reduction in car prowling	11/9/2018 12:06 AM
29	Rain garden to collect pollution runoff from the parking lot	11/8/2018 7:42 PM
30	Safety	11/8/2018 3:55 PM
31	Neighborhood connections, pedestrian connections. These are more important than more parking. How do you cross Renton Avenue safely? How do you feel welcomed into the garden if you're coming by foot?	11/7/2018 6:31 PM
32	connection to the garden	11/7/2018 7:55 AM
33	Not parking	11/6/2018 9:14 AM
34	Preserving the windrow of poplar trees	11/2/2018 9:00 AM
35	bike racks	11/2/2018 4:54 AM
36	Knowing where the garden entrance is from Renton Ave	10/27/2018 10:33 AM

Kubota Master Plan Update Survey

Q4 The master plan update proposes adding amenities to improve the visitor's experience. Which garden amenities are most important to you? (Choose 3)

Answered: 138 Skipped: 0



ANSWER CHOICES	RESPONSES
Restrooms	79.71% 110
A visitor center	29.71% 41
Signs/wayfinding/maps	54.35% 75
Benches	43.48% 60
Picnic areas	15.94% 22
Drinking fountains	22.46% 31
Snacks/refreshments	5.80% 8
Other (please specify)	14.49% 20
Total Respondents: 138	

#	OTHER (PLEASE SPECIFY)	DATE
1	None- keep it simple, there are enough benches	12/2/2018 3:06 PM
2	The garden is perfect as is.	12/1/2018 10:37 PM
3	ADA accessible paths	12/1/2018 9:09 PM

SPR ONLINE SURVEY RESULTS

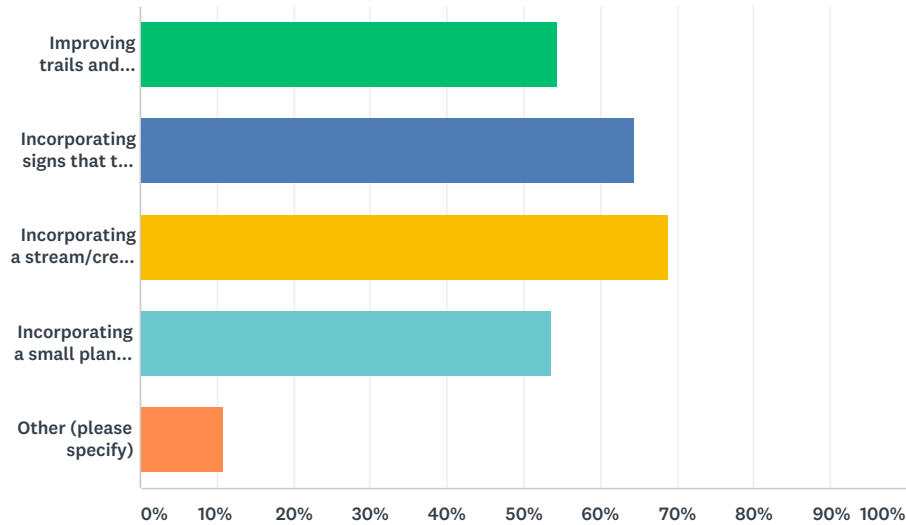
Kubota Master Plan Update Survey

4	None	12/1/2018 1:18 PM
5	maintaining the peacefulness (both in sound and appearance)	12/1/2018 12:00 PM
6	Parking and access for all the wedding parties who take photos there.	12/1/2018 12:40 AM
7	Bike parking	11/30/2018 3:52 PM
8	Garbage cans so people don't throw trash everywhere	11/30/2018 1:50 PM
9	Japanese style playground	11/28/2018 7:37 PM
10	Signs can ugly up the garden pretty fast.	11/28/2018 3:39 PM
11	I like it on the wild side, not over-developed.	11/28/2018 2:58 PM
12	Signs with names and information on plants	11/28/2018 12:41 PM
13	Please don't add amenities except restrooms. Don't turn it into another boring park dumbed down for the masses. Allow it to retain its original character as much as possible.	11/28/2018 9:03 AM
14	Docents	11/27/2018 10:54 PM
15	1 of 3: Build a chess table. 2. Signs stating when Park is closed. 3. A gate closing off parking area when the Park is closed.	11/27/2018 6:41 PM
16	Area for concerts/plays/ceremonies to enjoy outdoors	11/9/2018 3:16 PM
17	See "Notes"	11/7/2018 6:31 PM
18	features that acknowledge the history of the garden and the Japanese experience during WW2	11/7/2018 7:55 AM
19	Better maintained paths	11/4/2018 9:48 AM
20	The great pond with a water wheel described in the video interview with Tom Kubota	11/2/2018 9:00 AM

Kubota Master Plan Update Survey

Q5 The master plan update proposes changes to some areas of the garden. Which garden enhancements are most important to you?
(Choose 3)

Answered: 138 Skipped: 0



ANSWER CHOICES	RESPONSES
Improving trails and pathways	54.35% 75
Incorporating signs that tell garden history	64.49% 89
Incorporating a stream/creek to improve water quality	68.84% 95
Incorporating a small plant nursery to grow plants for Kubota Garden	53.62% 74
Other (please specify)	10.87% 15
Total Respondents: 138	

#	OTHER (PLEASE SPECIFY)	DATE
1	ADA pathways	12/1/2018 9:09 PM
2	It's so beautiful and unique, i just don't want to see that get lost.	12/1/2018 2:27 PM
3	disability accomodations	11/30/2018 10:09 PM
4	Accessibility for those who are mobility impaired.	11/30/2018 7:54 PM
5	Signs with plant identification	11/30/2018 3:52 PM
6	Growing the Native Plant Area near the Memorial Stone	11/28/2018 4:44 PM
7	Maybe just the outer path, everything else is pretty nice.	11/28/2018 2:58 PM
8	maintaining what is already there; it's just about perfect.	11/28/2018 10:39 AM
9	Trails and pathways are fine. No signs all over the place please. Improving water quality is good but still water is reflective. Water quality is not a hallmark of traditional Japanese gardens. Murky water reflects better, doesn't it?	11/28/2018 9:03 AM

SPR ONLINE SURVEY RESULTS

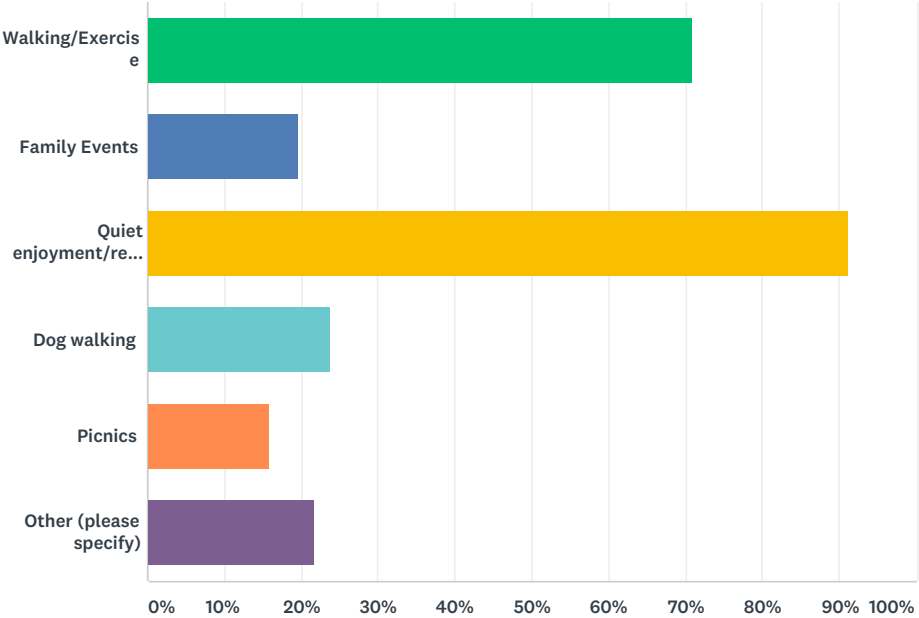
Kubota Master Plan Update Survey

10	The master plan should address ways to make the park more permeable for the community. Their is only one real entrance for a 20 acre space, and that entrance is on the back side to downtown Rainier Beach, the light rail, and the Chief Sealth Trail. This access issue is a design failure that the master plan is only exacerbating but further walling off the garden, creating a private space, and expanding the parking.	11/28/2018 7:00 AM
11	Designated selfie spots	11/27/2018 4:02 PM
12	Staff to ensure overall pleasing appearance- ex: weeding.	11/12/2018 8:52 AM
13	Info on the plants and more nice landscape designs in open spaces	11/9/2018 3:16 PM
14	signs so I stop getting lost...and find what i'm looking for. AND plant name tags/signs	11/8/2018 1:40 PM
15	Signage to get back to parking lot; assist with access from lower garden back to garden entry	10/27/2018 10:33 AM

Kubota Master Plan Update Survey

Q6 How have you been using the garden? If you have not yet used the garden how do you plan to use it when you visit?

Answered: 138 Skipped: 0



ANSWER CHOICES	RESPONSES
Walking/Exercise	71.01% 98
Family Events	19.57% 27
Quiet enjoyment/reflection	91.30% 126
Dog walking	23.91% 33
Picnics	15.94% 22
Other (please specify)	21.74% 30
Total Respondents: 138	

#	OTHER (PLEASE SPECIFY)	DATE
1	I often take visitors here. It is such a gem and something to be proud of!	12/1/2018 2:27 PM
2	Photography practice in different seasons	12/1/2018 8:42 AM
3	Someplace to take visitors from out of town for a stroll.	12/1/2018 12:40 AM
4	kid outdoor time	11/30/2018 10:09 PM
5	Family photo shoot	11/30/2018 8:39 PM
6	Take out of town guests	11/30/2018 6:15 PM
7	Pokemon Go	11/30/2018 2:07 PM
8	Fun (for some reason the survey won't let me I click this, i unclick it and it just reloads with "please enter a comment)	11/30/2018 1:50 PM

SPR ONLINE SURVEY RESULTS

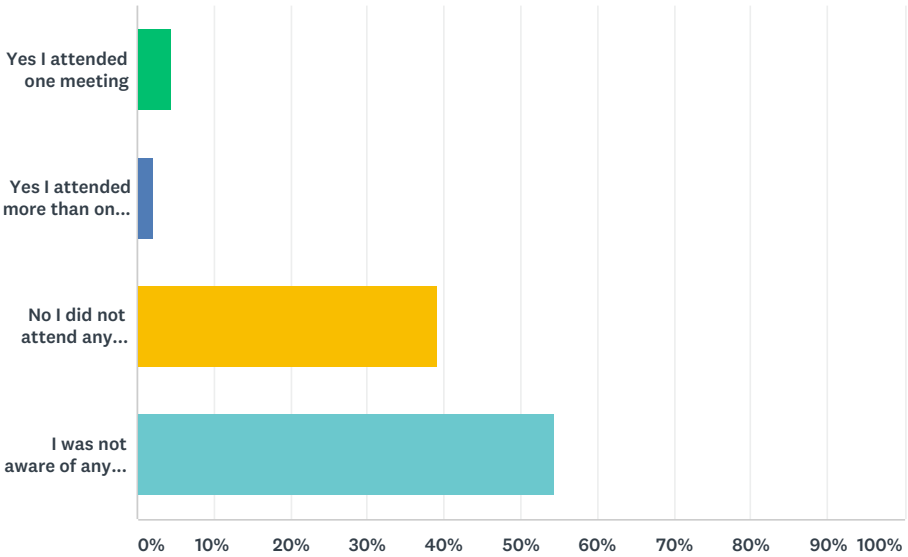
Kubota Master Plan Update Survey

9	We take out of town guests to the Garden several times a year. Great place for photos of scenery & family pictures.	11/29/2018 1:50 PM
10	History Tours of Seattle's Japanese American Community to Guests	11/28/2018 4:44 PM
11	Pictures	11/28/2018 4:09 PM
12	Enjoying the peace and beauty in any way possible.	11/28/2018 3:39 PM
13	Hanging out with young kids.	11/28/2018 2:58 PM
14	birdwatching	11/28/2018 9:30 AM
15	Photography; bird watching	11/27/2018 10:54 PM
16	Events - performing arts	11/27/2018 8:48 PM
17	Appreciating the plant life and garden plan!	11/27/2018 5:44 PM
18	our daughter's wedding	11/27/2018 5:14 PM
19	Learning about plants	11/27/2018 4:50 PM
20	Plant walks.	11/27/2018 4:32 PM
21	Photography	11/27/2018 2:07 PM
22	Family photos	11/26/2018 8:53 AM
23	volunteering at least a couple times a months	11/9/2018 12:31 PM
24	Amateur Photography	11/9/2018 12:06 AM
25	Wandering around with my toddler, looking for magical places	11/8/2018 7:42 PM
26	photos, leisurely strolls	11/8/2018 1:40 PM
27	A friend's wedding; the filming of a school play. Also, please note, answer to #1 varies widely. Some years, I've visited every few weeks.	11/7/2018 6:31 PM
28	volunteer work parties	11/2/2018 9:00 AM
29	Garden photography	11/1/2018 5:43 PM
30	Tours with family and friends	10/27/2018 10:33 AM

Kubota Master Plan Update Survey

Q7 There were two open house events and one public meeting for the Kubota Master Plan Update. Did you attend any of these meetings?

Answered: 138 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes I attended one meeting	4.35%	6
Yes I attended more than one meeting	2.17%	3
No I did not attend any meetings	39.13%	54
I was not aware of any meetings	54.35%	75
TOTAL		138

SPR ONLINE SURVEY RESULTS

Kubota Master Plan Update Survey

Q8 Additional comments:

Answered: 37 Skipped: 101

#	RESPONSES	DATE
1	If it isn't already so, I'd prefer no dogs in the garden.	12/2/2018 7:34 PM
2	We live very close to the back gate yet to enter the park have to walk up a busy street to the main entrance. I wish the park could be better Incorporated into the neighborhood and the chief sealth trail	12/2/2018 3:06 PM
3	Thank you for working to improve Kubota gardens. Please keep the beauty and uniqueness!	12/1/2018 2:27 PM
4	I love Kubota Gardens and want to visit more. I am excited about this initiative and hope the improvements are in keeping with the beauty and peacefulness of the garden.	12/1/2018 12:00 PM
5	This park is very popular for photographs of wedding parties.	12/1/2018 12:40 AM
6	The most magical park in Seattle. So in Line with the Olmsted vision too.	11/30/2018 8:54 PM
7	It is important to me that this park remains free and open to the public. I would not go if it cost money, and I enjoy it a lot. People need access to green spaces and trees and nature, even in cities, to go and relax.	11/30/2018 3:52 PM
8	Love Kubota Gardens- my neighborhood park!	11/30/2018 3:01 PM
9	Better Trails Please	11/28/2018 9:59 PM
10	Japanese style playground would be so awesome for South Seattle. Let's do this!	11/28/2018 7:37 PM
11	Very incredible project. I wish you the very best. For the record, as a resident of Seattle in the surrounding neighborhoods I am supportive of a door fee and promoting further state/city investment into Kubota Garden as an invaluable environmental and cultural asset of Seattle.	11/28/2018 4:44 PM
12	I wish that the available parking along Renton Avenue could be better publicized. Loosing some of the garden to more parking seems a bad bargain.	11/28/2018 3:39 PM
13	It might be nice to restrict photography in some way, so many large groups get in the way of enjoying the park.	11/28/2018 2:58 PM
14	Please do not change the culture of Kubota too much. it's such a beautiful space and while increasing visitorship can be good it can also mean more wear and tear on the grounds, more litter, less tranquility.	11/28/2018 10:39 AM
15	I fear that with "improvements" to the park, you'll wall it in and start charging admission like Seattle Japanese Garden. That would be a shame. The park is fine just the way it is, except it could use a few more parking spaces and actual restrooms.	11/28/2018 9:03 AM
16	The garden needs more entry points to become more accessible to the surrounding community. Not having an entrance on the north and west side add a 1/4 to 3/4 of a mile walk to any neighbor who wants to get inside of the park. This barrier to enjoy this treasure in our backyard robs us of easy daily ability to appreciate the park. In an area with limited developed parks as such, this is an injustice to our neighborhood.	11/28/2018 7:00 AM
17	When my daughter was younger, she is 22 now, we spent a lot of time at Kubota. We loved the secret paths and having picnics next to the ponds.	11/27/2018 10:57 PM
18	I love this park and am looking forward to seeing what the community wants the future of it to look like. Two things based on the questions above: Please, no refreshments--I don't want to see wrappers or garbage in the park. And please no way finding signs (a map at the top, maybe). One of the great joys of Kubota is that you can wander around and feel like you're in something more wild than you. There's no right or wrong way to wander through the gardens and nothing is more important to see than anything else. In our world it's rare that we can do something, anything, without have it do it the "right" way and I fear that the signs will give the impression that there's a right way to see the park :(11/27/2018 8:43 PM
19	None.	11/27/2018 6:41 PM

Kubota Master Plan Update Survey

20	I especially like the unofficial back trails. Please don't change them too much.	11/27/2018 6:27 PM
21	I think part of the Master Plan should consider how much maintenance will be required for any new parts of the garden or whether maintenance might even be lessened. Kubota is a large garden/park and it already lacks some regular maintenance, such as weeding, pruning, etc. I would hope that there might be additional gardeners or maintenance workers added to care to any extra work that the Master Plan creates.	11/27/2018 5:44 PM
22	I've often heard how wonderful Kubota Gardens is, but then I've also read that there is a high instance of car break-ins there. This has scared me off. I'd like to feel safer and able to visit alone during the day or with my 2 small children. Currently, I don't feel I can.	11/27/2018 2:36 PM
23	This is such a beautiful garden with a rich history. I'm grateful a new Master Plan is being developed.	11/27/2018 2:07 PM
24	I have not been yet - but plan to, I have been to the Washington Park arboretum many times	11/27/2018 1:44 PM
25	This is a real gem of a garden, with a very significant and important history---which must be included!	11/27/2018 1:17 PM
26	Re: 5 above- the past several times I have been to the Garden, it appeared in need of ongoing maintenance. I picked-up litter in a walk-through in late summer, but weeds had begun to take-over some areas. More staff, more volunteers needed?	11/12/2018 8:52 AM
27	We love the two main ponds and would love to see more. We used to be near the Japanese Garden in the Arboretum and enjoyed the activities. We'd likely visit Kubota more if there were more events.	11/9/2018 3:16 PM
28	I used to be very involved with the Garden and this survey reminds me that i need to contribute more in the future. Thanks for reaching out.	11/9/2018 5:12 AM
29	I think awareness of the natural aspects of the property, including Mapes Creek and the wetlands surrounding the developed garden area, could be improved.	11/9/2018 12:06 AM
30	Please NO picnics or snacks! the trash & litter people will create will ruin the garden experience	11/8/2018 2:23 PM
31	The gardens are gorgeous and I feel confident that whatever you do will continue to reflect the feel and design of the garden	11/8/2018 1:40 PM

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Kubota Master Plan Update Survey

32	<p>Keeping the sense that the garden is a bit mysterious and a local secret - that you cannot find everything the first time you visit, you cannot find everything the first 10 times. You discover a new path, a new way of traversing the garden 10 years in. // There's something about the way in which the garden has evolved that makes it feel like a gracious but unpretentious residential space that is part of the neighborhood, and this makes it unlike any other park in Seattle of which I am familiar. There must be a way to make it "more accessible" without losing the sense of it being developed over a long period of time?? In a way that is true to its history? How do you make it better serve the public without losing this contextual, meandering quality? // Please please please, I beg of you, please keep the sense of surprise and exploration. Everything does not need to be signed and cataloged and straightened and make sense. Getting lost in a safe place like Kubota Gardens is a relief from our micromanaged google mapped urbanism. // It could be okay that you add a "program," but do not allow this to take this place into the banal regularity of what is "expected." Play with the history of the Japanese garden, play with the transition of the Japanese landscape into the Seattle landscape and what that means to our neighborhood archetypes of elegantly pruned evergreens, what is uniquely Seattle and what is not? Most of all, play with creating space. There is a serious design problem of making vistas and the sense of expanding and receding sense of space that has NOTHING to do with wayfinding. The trees, the plants, the colors, the meandering pathways – this is the program. // Yes to strong design. Design that is strong enough to hold some mystery and design that remains true to the neighborhood. It is fine if it is a regional attraction with its sign on I-5, but it is more of a regional attraction if it remains strongly rooted in the space in which it currently exists. // The deep hedge along Renton Avenue is nice - I've always been pleasantly amazed that it is allowed to take up some of the space of the sidewalk and not pruned within an inch of its life. Please don't lose this buffer!!!! The hedge makes you feel that you are both part of the neighborhood (a simple, thick common form that divides your home from your neighbors) and at the same time, the hedge leaves you a world away, because it acts as both a visual and sound barrier. // The gardeners are brilliant. Support the gardeners first, before you add any expensive newly built structures, no matter how wonderful, needed etc. Because the program is the plants, the natural systems, the birds, the water. I know it's easier to designate public funds to the "new" and to the "built," but what really matters to a garden is caretaking. // If there is one area to really improve, it is the waterways. They need more motion. Go up to Deadhorse Canyon and look at the way in which the creek is forming at the very last bridge, the way it tumbles around the trees. // Many thanks!! I have been happy with the changes I've seen take place at Kubota Garden over the years, so I haven't ever felt the need to say anything or track these projects too closely. But if any of my ideas are things you are not considering, I hope you will take them to heart! Please keep in mind that while I'm not up to speed, I do really care about this space – and I do want change and very strong design! A deepening and refining of the space as it is would be very nice! Best of luck to all involved! Thank you for your careful work on behalf of the garden.</p>	11/7/2018 6:31 PM
33	Additional parking, bathrooms, and a visitor center are sorely needed	11/2/2018 10:10 AM
34	Trees are permanent features that convey design intent, and should be considered in developing the master plan.	11/2/2018 9:00 AM
35	I particularly like the watercourses and would like to see more. I would like to see plant identification and perhaps a garden guide so visitors can incorporate the same plants in their own gardens and landscaping A zen garden would be appreciated	11/1/2018 5:43 PM
36	Such a special, unique place. The gem of Seattle!	11/1/2018 5:39 PM
37	The garden clearly is a special place in the neighborhood where I grew up. Seattle Parks should staff it as a garden - and to keep up with increasing attendance.	10/27/2018 10:33 AM

Kubota Master Plan Update Survey

Q9 What is your zip code?

Answered: 138 Skipped: 0

#	RESPONSES	DATE
1	98114	12/3/2018 6:15 AM
2	98106	12/2/2018 7:34 PM
3	98118	12/2/2018 3:06 PM
4	98012	12/2/2018 1:47 PM
5	98115	12/2/2018 10:55 AM
6	98178	12/1/2018 10:37 PM
7	98108	12/1/2018 9:50 PM
8	98178	12/1/2018 9:09 PM
9	98178	12/1/2018 8:43 PM
10	98118	12/1/2018 6:41 PM
11	98118	12/1/2018 2:27 PM
12	98144	12/1/2018 1:18 PM
13	98118	12/1/2018 12:00 PM
14	98118	12/1/2018 11:21 AM
15	98118	12/1/2018 8:42 AM
16	98118	12/1/2018 12:40 AM
17	98144	11/30/2018 10:09 PM
18	98178	11/30/2018 8:54 PM
19	98178	11/30/2018 8:39 PM
20	98118	11/30/2018 8:09 PM
21	98108	11/30/2018 7:54 PM
22	98108	11/30/2018 7:20 PM
23	98105	11/30/2018 6:15 PM
24	98116	11/30/2018 5:41 PM
25	98144	11/30/2018 5:11 PM
26	98178	11/30/2018 4:31 PM
27	98144	11/30/2018 3:52 PM
28	98178	11/30/2018 3:45 PM
29	98118	11/30/2018 3:34 PM
30	98199	11/30/2018 3:29 PM
31	98118	11/30/2018 3:01 PM
32	98118	11/30/2018 2:47 PM
33	98126	11/30/2018 2:07 PM
34	98118	11/30/2018 2:07 PM
35	98118	11/30/2018 1:56 PM

SPR ONLINE SURVEY RESULTS

Kubota Master Plan Update Survey

36	98204 (but I used to live at 98125)	11/30/2018 1:50 PM
37	98108	11/29/2018 8:43 PM
38	98178	11/29/2018 4:46 PM
39	98118	11/29/2018 1:50 PM
40	98118	11/29/2018 11:14 AM
41	98104	11/29/2018 9:48 AM
42	98118	11/28/2018 9:59 PM
43	98118	11/28/2018 7:37 PM
44	98118	11/28/2018 4:44 PM
45	98118	11/28/2018 4:33 PM
46	98178	11/28/2018 4:09 PM
47	98178	11/28/2018 3:39 PM
48	98168	11/28/2018 2:58 PM
49	98118	11/28/2018 12:41 PM
50	98144	11/28/2018 11:50 AM
51	98125	11/28/2018 10:39 AM
52	98118	11/28/2018 9:46 AM
53	98118	11/28/2018 9:30 AM
54	98146	11/28/2018 9:03 AM
55	98178	11/28/2018 7:41 AM
56	98118	11/28/2018 7:00 AM
57	98144	11/28/2018 4:24 AM
58	98118	11/28/2018 12:17 AM
59	98019	11/27/2018 11:37 PM
60	98118. We live a few houses up from Emerson.	11/27/2018 10:57 PM
61	98103	11/27/2018 10:54 PM
62	98118	11/27/2018 10:31 PM
63	98118	11/27/2018 10:00 PM
64	98118	11/27/2018 9:39 PM
65	98119	11/27/2018 9:19 PM
66	98144	11/27/2018 8:48 PM
67	98118	11/27/2018 8:43 PM
68	98118	11/27/2018 8:37 PM
69	98118	11/27/2018 8:17 PM
70	98122	11/27/2018 7:12 PM
71	98118	11/27/2018 6:41 PM
72	98118	11/27/2018 6:27 PM
73	98178	11/27/2018 6:24 PM
74	98118	11/27/2018 6:10 PM
75	98118	11/27/2018 5:44 PM
76	98118	11/27/2018 5:14 PM

SPR ONLINE SURVEY RESULTS

Kubota Master Plan Update Survey

77	98103	11/27/2018 4:50 PM
78	98155	11/27/2018 4:43 PM
79	98101	11/27/2018 4:32 PM
80	98122	11/27/2018 4:27 PM
81	98122	11/27/2018 4:02 PM
82	98122	11/27/2018 3:56 PM
83	98118	11/27/2018 3:55 PM
84	98144	11/27/2018 3:09 PM
85	98103	11/27/2018 2:50 PM
86	98199	11/27/2018 2:36 PM
87	98118	11/27/2018 2:33 PM
88	98118	11/27/2018 2:26 PM
89	98029	11/27/2018 2:07 PM
90	98118	11/27/2018 2:02 PM
91	98118	11/27/2018 2:01 PM
92	98118	11/27/2018 1:55 PM
93	98105	11/27/2018 1:44 PM
94	98027	11/27/2018 1:23 PM
95	98118	11/27/2018 1:17 PM
96	98118	11/27/2018 10:00 AM
97	98118	11/27/2018 7:56 AM
98	98118	11/27/2018 7:46 AM
99	98118	11/26/2018 8:59 PM
100	98144	11/26/2018 3:39 PM
101	98118	11/26/2018 2:28 PM
102	98108	11/26/2018 8:53 AM
103	98117	11/16/2018 10:39 AM
104	98144	11/14/2018 3:04 PM
105	98136	11/12/2018 8:52 AM
106	98146	11/10/2018 2:26 PM
107	98178	11/9/2018 3:16 PM
108	98118	11/9/2018 12:31 PM
109	98115	11/9/2018 5:12 AM
110	98118	11/9/2018 12:06 AM
111	98118	11/8/2018 9:40 PM
112	98106	11/8/2018 7:42 PM
113	98110	11/8/2018 5:58 PM
114	98006	11/8/2018 5:54 PM
115	98178	11/8/2018 3:55 PM
116	98178	11/8/2018 3:29 PM
117	98199	11/8/2018 3:26 PM

SPR ONLINE SURVEY RESULTS

Kubota Master Plan Update Survey

118	98026	11/8/2018 3:10 PM
119	98115	11/8/2018 3:02 PM
120	98030	11/8/2018 2:23 PM
121	98118	11/8/2018 1:43 PM
122	98091	11/8/2018 1:40 PM
123	98118	11/8/2018 1:14 PM
124	98119	11/8/2018 12:59 PM
125	98118	11/7/2018 6:31 PM
126	98118	11/7/2018 7:55 AM
127	98103	11/6/2018 9:14 AM
128	98118	11/4/2018 9:48 AM
129	98146	11/2/2018 3:57 PM
130	98118	11/2/2018 10:10 AM
131	98146	11/2/2018 9:00 AM
132	98178	11/2/2018 4:54 AM
133	98118	11/2/2018 4:15 AM
134	98178	11/1/2018 7:30 PM
135	98383	11/1/2018 5:43 PM
136	98058	11/1/2018 5:39 PM
137	98122	10/30/2018 11:26 AM
138	98026	10/27/2018 10:33 AM

DRAFT

TECHNICAL MEMORANDUM

Project: Kubota Gardens
Subject: Existing Visitor and Parking Characteristics
Date: November 29, 2018
Author: Marni C. Heffron, P.E., P.T.O.E.
Julie A. Royson

The Kubota Garden Foundation is updating the Master Plan for the gardens and contemplating improvements to the site's access and parking. To support that effort, detailed information about the number of visitors and the peak parking demand were collected. That information is presented below.

1. Number of Visitors

1.1. Annual and Seasonal Visitors

Kubota Garden has an automatic pedestrian counter located at its main entry gate. This counter tracks entry and exit traffic by time and day. Figure 1 shows the annual visitors since 2014. The Garden is on track to reach 100,000 visits for all of 2018, which would reflect a very robust growth rate of 15% per year (compounded) over this four-year span.

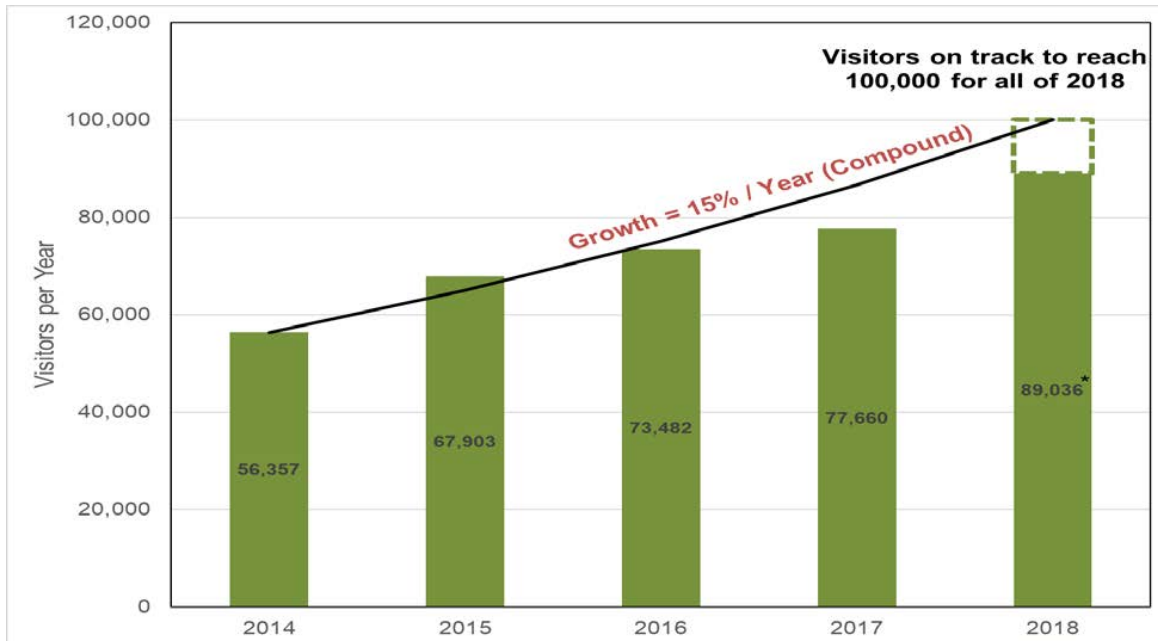
Based on the counts so far this year, about 83% of all visits occur during the peak eight-month period between March 1 and October 31st. Figure 2 shows the daily visitors for this peak season in 2018. The chart clearly shows each weekend (indicated by the spikes in daily traffic) as well as the season peaks that occur in the spring (when the rhododendrons and azaleas are in bloom) and fall. The peak days coincide with the Kubota Garden's Spring Plant Sale and mid October when leaf color is at its best.

1.2. Peak Day and Hourly Visitors

Data for the peak October season were compiled to show visitor entries and exits by time of day. These data reveal that there is no consistent pattern day to day. The time that people visit could be related to weather or other activities that a person has that day. Figure 3 shows the hourly visitor entries and exits for the peak Wednesday and peak Saturday in October. Visitors on a Saturday were concentrated during the midday hours while those on a weekday were more spread out with peaks mid-morning and in the afternoon.

EXISTING VISITOR & PARKING CHARACTERISTICS

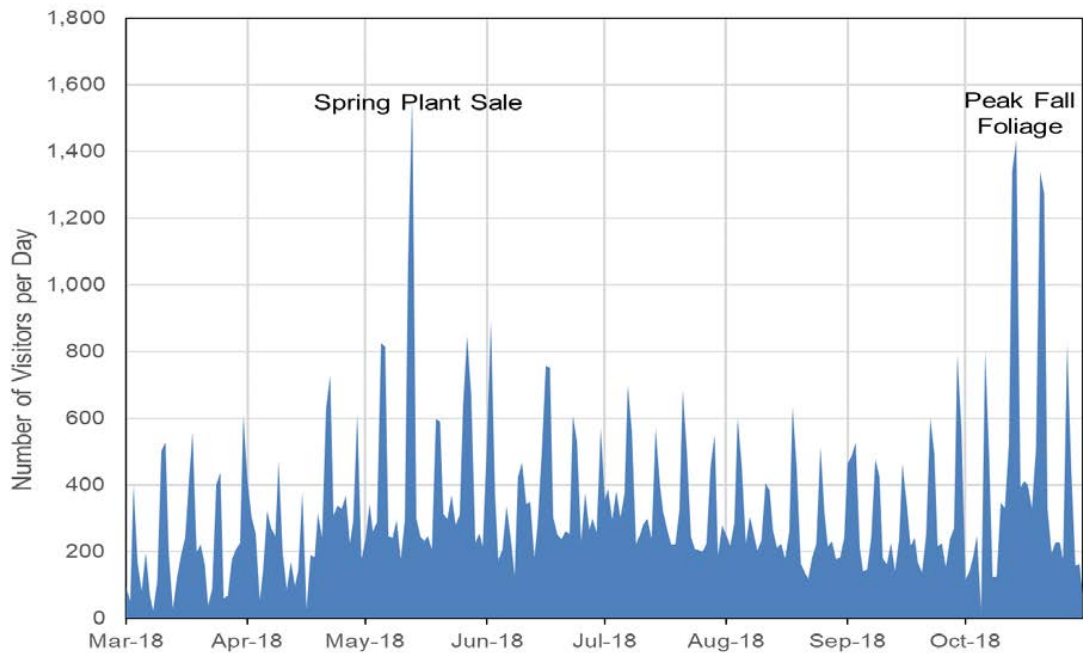
Figure 1. Kubota Gardens Annual Visitors



Source: Kubota Garden Foundation. Data compiled by Heffron Transportation, Inc.

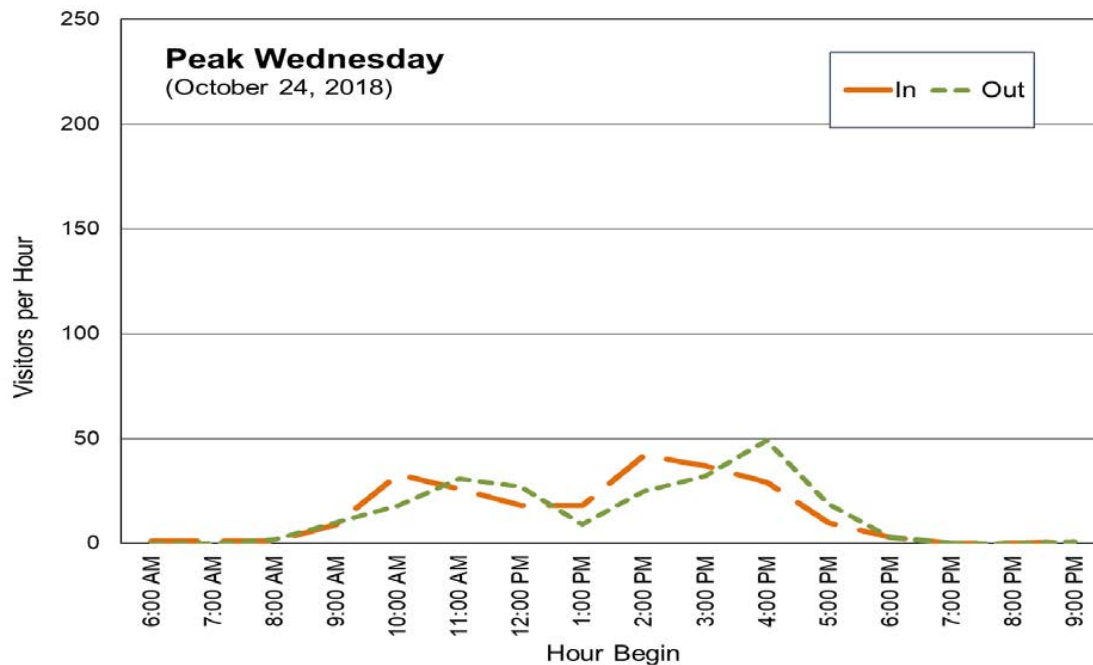
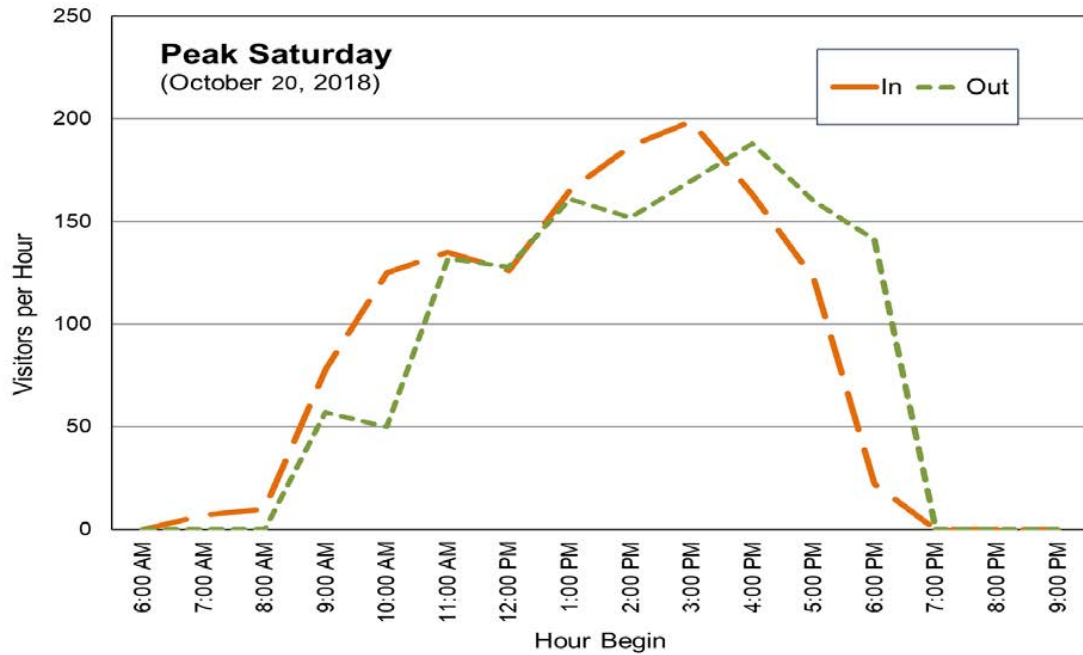
* Total visitors listed for 2018 is through October 31, 2018.

Figure 2. Daily Visitors during Peak Season - 2018



Source: Kubota Garden Foundation. Data compiled by Heffron Transportation, Inc.

Figure 3. Hourly Visits by Day of Week – Peak October Week 2018

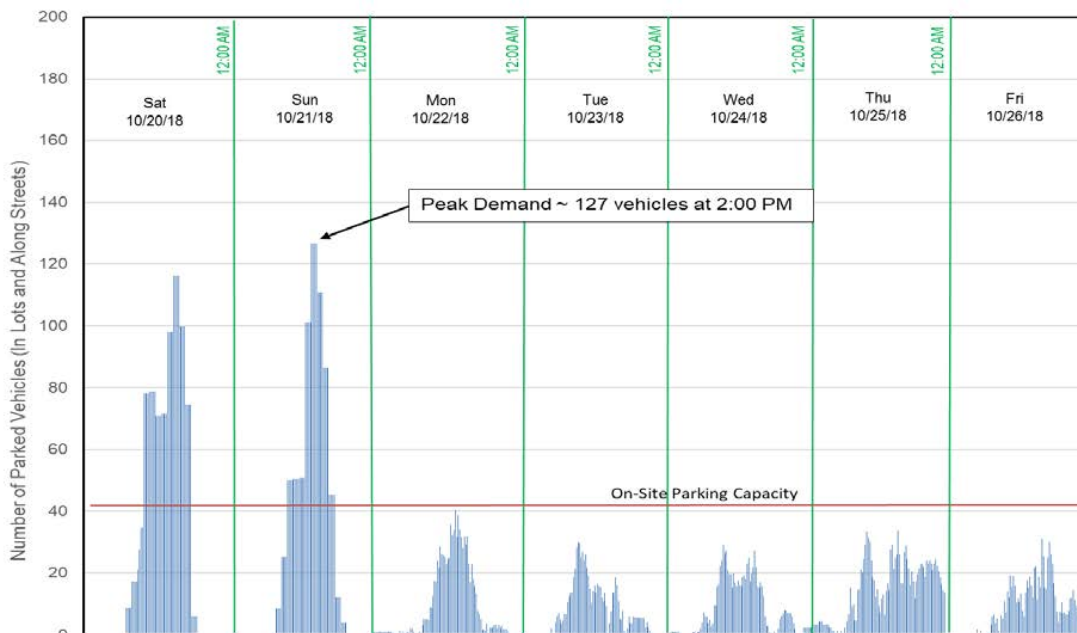


Source: Kubota Garden Foundation. Data compiled by Heffron Transportation, Inc.

2. Existing Parking Demand

A parking demand survey was performed during the peak Fall Foliage week between Saturday October 20, 2018 and Friday October 26, 2018. This survey was performed using machine traffic counting machines located along 55th Avenue S both north and south of the Kubota Garden parking lot driveways. The machines use pneumatic tubes to count vehicle axles and are grouped into 15-minute increments. Manual parking demand counts were performed by Heffron Transportation to capture peak parking activity on the peak Saturday and Sunday during this survey week. These data were used to create a parking profile by day and hour, which is shown on Figure 4. This chart shows the parking demand by time of day, with the green vertical bars indicating midnight of each day. The peak overall demand during this peak week was 127 vehicles at 2:00 P.M. on Sunday afternoon.

Figure 4. Parking Demand Profile – Peak Fall Week 2018



Source: Data collected by IDAX. Machine traffic counts performed Saturday, October 20 through Friday October 27, 2018. Compiled by Heffron Transportation and compared to manual parking counts performed at various times.

The parking analysis found that demand for parking greatly exceeded the Kubota Garden’s on-site parking capacity (about 40 stalls) for much of the day on both Saturday and Sunday. During the peak, an estimated 127 vehicles associated with the Garden were parked in the on-site lot and area streets. During this peak, vehicles were parked along all the parking lot access drives and on both sides of 55th Avenue S near the site, and extending along the west edge of 55th Avenue S to the residential area about a quarter mile south of the garden parking lot. Vehicles were also parked along the south side of Renton Avenue S north and south of 55th Avenue S. Figure 5 depicts some of the parking conditions during the peak October conditions. It is noted, that the on-site parking lot does accommodate the peak demand on all of the peak weekdays.

Figure 5. Existing Peak Parking Conditions at and near Kubota Garden



Source: Photos by Mami Heffron and Joy Okazaki, October 2018.

3. Peak Parking Rates

The results from the peak week parking survey were compiled to derive a rule-of-thumb parking rate based on the daily visitors. This will allow Kubota Garden to plan for peak condition based on data that it regularly collects. The rates for the various conditions are summarized in Table 1.

Table 1. Parking Demand Rates for Kubota Garden

Day of Week	Date	Daily Visitors ^a	Time of Peak Parking Demand ^b	Peak Parking Demand ^b	Parking Rate/ 1,000 visitors ^c
Weekend					
Sat	October 20, 2018	1,288	3:00 PM	116	90.2
Sun	October 21, 2018	1,228	2:00 PM	127	103.2
Weekdays					
Mon	October 22, 2018	311	2:00 PM	41	130.5
Tue	October 23, 2018	187	10:30 AM	30	160.8
Wed	October 24, 2018	216	10:45 AM	29	133.8
Thu	October 25, 2018	218	4:00 PM	34	154.7
Fri	October 26, 2018	170	4:00 PM	31	181.3
<i>Average Weekday</i>		220		33	148.9

a. From Kubota Garden entrance counter.

b. Derived by Heffron Transportation, Inc. based on traffic counts and manual parking counts.

c. Calculated as Peak Demand ÷ (Daily Visitors / 1000)

4. Effect of Parking Lot Expansion

As part of its Master Plan, Kubota Garden is contemplating a project that would expand and reconfigure the existing parking lot, increasing its capacity from about 40 vehicles to 73 vehicles. Based on the rates above, this expanded lot would accommodate weekend days with just over 700 visitors. In 2018, there were only 15 days in the year when the number of visitors exceed this threshold. For comparison, the existing 40-space parking lot accommodates days with approximately 400 visitors, and there were 46 days in 2018 when that threshold was exceeded.

Kubota Garden is also planning to construct a small Visitor Center (about 1,000 square feet) that could accommodate events with up to 70 attendees. Parking rates for events typically range from 1.5 to 2.5 persons per vehicle, resulting in a demand of 28 to 47 vehicles. As shown in the parking demand profile in Figure 4, even on the peak days of the year, parking demand generated by existing garden features had decreased substantially during the evening hours (33 vehicles were parked on Sunday, October 21, 2018 at 6:00 P.M.). Therefore, it would be possible to schedule full-capacity events in the evening on nearly every day of the year. During off-peak seasons and on weekdays, midday events would also be possible. It is likely that midday events on peak season weekends would require aggressive parking management measures such as shuttles to remote parking or valet parking that could stack-park a section of the expanded parking lot.

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Kubota Gardens - Existing Visitor and Parking Demand - DRAFT.docx

ADA AUDIT TABLE FOR NON-COMPLIANCE

Transition Plan Database Facilities

Record Number	Facility	Area	Room/Space Description	Element	Element Description	Attribute	Attribute Description	On-Site Value	Meets Requirement s.7	DOJ COS ID	Finding	Priority	Recommendation	Recomm. Value	Mitigation Difficulty	Photo Reference Number
5346	Kubota Garden	Exterior	Parking Facility	Parking Space	1	Dim. height of sign		42.5	NO	2396	Too low.	1-Entry	Raise the height of the sign.	6'0" minimum	3-Low	4274132
5347	Kubota Garden	Exterior	Parking Facility	Parking Space	2	Dim. height of sign		42	NO	2396	Too low.	1-Entry	Raise the height of the sign.	6'0" minimum	3-Low	4274142
5348	Kubota Garden	Exterior	Parking Facility	Parking Space	2	Slope, running		4.5	NO	2397	Excessive slope.	1-Entry	Regrade/replace paved surface.	2.08% maximum	1-High	4274140, 4274141
5350	Kubota Garden	Exterior	Parking Facility	Parking Space	1	Dim. width		95	NO		Too narrow	1-Entry	Restripe parking space.	9'6" minimum	3-Low	4274128
5353	Kubota Garden	Exterior	Parking Facility	Parking Space	1	Slope, running		3.8	NO		Excessive slope.	1-Entry	Regrade/replace paved surface.	2.08% maximum	1-High	4274130
5357	Kubota Garden	Exterior	Parking Facility	Access Aisle	1&2	Slope, cross		3.4	NO		Excessive slope.	1-Entry	Regrade access aisle or relocate accessible parking to a level area of the parking facility.	2.08% maximum	1-High	4274134
5358	Kubota Garden	Exterior	Parking Facility	Access Aisle	1&2	Slope, running		4.9	NO		Excessive slope.	1-Entry	Regrade access aisle or relocate accessible parking to a level area of the parking facility.	2.08% maximum	1-High	4274136
5361	Kubota Garden	Exterior	Parking Facility	Parking Space	2	Dim. width		94.75	NO		Too narrow	1-Entry	Restripe parking space.	9'6" minimum	3-Low	4274138
5370	Kubota Garden	Exterior	Parking Facility	Parking Space		Num. accessible vehicle spaces	Gravel lot	0	NO		Insufficient number	1-Entry	Provide a paved surface lot for accessible spaces.	1 minimum	1-High	4274143
5372	Kubota Garden	Exterior	Restroom Portable	Portable Space		Closing speed		2	NO		Too fast.	3-Restrooms	Adjust the door closer to the correct closing speed.	5 seconds minimum	3-Low	No photo
5374	Kubota Garden	Exterior	Restroom Portable	Portable Space		Dim. height of threshold		2	NO		Too high	3-Restrooms	Provide a threshold which is 0.25 inch maximum, or a beveled threshold which is 0.5 inch maximum, at the door entrance.	0.5 inch maximum	3-Low	4273962
5382	Kubota Garden	Exterior	Restroom Portable	Water Closet		Dim. sidewalk to centerline		19	NO		Too far.	3-Restrooms	Relocate the toilet so that it is within the required distance from the side wall.	16" to 18"	2-Moderate	4273964
5385	Kubota Garden	Exterior	Walkway	ADA Route	#3	Dim. height of vertical level change	At concrete	.75	NO		Too high.	1-Entry	Grind or bevel the surface to provide a change in level no higher than 1/2 inch (beveled), with a slope not > 1:2.	0.5" maximum	2-Moderate	4273953
5388	Kubota Garden	Exterior	Walkway	ADA Route	#3	Clear space located near bench?		No.	NO		Not provided.	4-Other	Provide a clear space next to the bench with a surface that is firm, stable and slip resistant.	30"x48"	2-Moderate	4273954
5389	Kubota Garden	Exterior	Walkway	ADA Route	#3	Slope, maximum		33.4	NO		Excessive slope.	4-Other	Provide a level surface at the clear floor space.	2.08% maximum	2-Moderate	4273955
5394	Kubota Garden	Exterior	Walkway	ADA Route	#6	Dim. height of vertical level change	At concrete terrace	1	NO		Too high.	1-Entry	Grind or bevel the surface to provide a change in level no higher than 1/2 inch (beveled), with a slope not > 1:2.	0.5" maximum	2-Moderate	4273977
5395	Kubota Garden	Exterior	Walkway	Walkway		Slope, cross	At parallel curb ramp	4.3	NO		Excessive slope.	1-Entry	Rebuild the walking surface with compliant running and cross slopes.	2.08% maximum	1-High	4274118
5396	Kubota Garden	Exterior	Walkway	Walkway		Slope, running	At parallel curb ramp, both sides	10.3	NO		Excessive slope.	1-Entry	Rebuild the walking surface with compliant running and cross slopes, or install handrails, edge protection, and landings required for ramps.	5.0% maximum	1-High	4274116
5397	Kubota Garden	Exterior	Walkway	Walkway		Clearance, vertical		71	NO		Too low.	1-Entry	Provide the correct vertical clearance.	8'0" minimum	3-Low	4274122
5398	Kubota Garden	Exterior	Walkway	Walkway		Slope, cross		3.8	NO		Excessive slope.	1-Entry	Rebuild the walking surface with compliant running and cross slopes.	2.08% maximum	1-High	4274124
5401	Kubota Garden	Exterior	Walkway	Door/Gate	Staff building	Clearance, door opening height		78.75	NO		Too low.	1-Entry	Replace the doorway with a compliant vertical clearance.	8'0" minimum	2-Moderate	4273988
5403	Kubota Garden	Exterior	Walkway	Door/Gate	Staff building	Closing speed		3	NO		Too fast.	1-Entry	Adjust the door closer to the correct closing speed.	5 seconds minimum	3-Low	No photo
5404	Kubota Garden	Exterior	Walkway	Door/Gate	Staff building	Dim. height of beveled threshold		.75	NO		Too high	1-Entry	Provide a threshold which is 0.25 inch maximum, or a beveled threshold which is 0.5 inch maximum, at the door entrance.	0.5" maximum	3-Low	4274001
5405	Kubota Garden	Exterior	Walkway	Door/Gate	Staff building	Fixed door stop provided?		Yes	NO		Door stop is located in smooth surface of door.	1-Entry	Remove door stop.	10" minimum AFF	3-Low	4273989
5409	Kubota Garden	Interior	Restroom Unisex	Signage, Designation		ISA symbol provided on sign?		No	NO	2398	No ISA symbol provided.	2-Services	Provide ISA symbol on signage.		3-Low	4274004
5410	Kubota Garden	Interior	Restroom Unisex	Dispenser, T.P.		Dim. from water closet seat		23	NO	2399	Wrong location.	3-Restrooms	Move the dispenser to the correct distance from the front of the toilet seat.	7" to 9" from water closet seat	3-Low	4274017, 4274018
5411	Kubota Garden	Interior	Restroom Unisex	Signage, Designation		Braille provided?		No	NO		No Braille provided.	2-Services	Replace the signage with compliant signage that has tactile letters and Braille. Mount the signage on the latch side of the door.		3-Low	4274004
5415	Kubota Garden	Interior	Restroom Unisex	Door/Gate		Clearance, door opening height		79.25	NO		Too low.	3-Restrooms	Replace the doorway with a compliant vertical clearance.	8'0" minimum	2-Moderate	4274006
5417	Kubota Garden	Interior	Restroom Unisex	Door/Gate		Closing speed		4	NO		Too fast.	3-Restrooms	Adjust the door closer to the correct closing speed.	5 seconds minimum	3-Low	No photo
5418	Kubota Garden	Interior	Restroom Unisex	Door/Gate		Fixed door stop provided?		Yes	NO		Door stop is located in smooth surface of door.	3-Restrooms	Remove door stop.	10" minimum AFF	3-Low	4274005
5421	Kubota Garden	Interior	Restroom Unisex	Door/Gate		Opening force		14	NO		Too high.	3-Restrooms	Adjust the door closer to the required amount of force allowed.	5 lbs. maximum	3-Low	No photo
5422	Kubota Garden	Interior	Restroom Unisex	Water Closet		Clearance, perpendicular	71 to wall	54	NO		Insufficient clearance	3-Restrooms	Relocate bench out of perpendicular clearance.	5'6" minimum	3-Low	4274010
5424	Kubota Garden	Interior	Restroom Unisex	Water Closet		Dim. sidewalk to centerline		15.5	NO		Too close.	3-Restrooms	Relocate the toilet so that it is within the required distance from the side wall.	16" to 18"	2-Moderate	4274013

ADA AUDIT TABLE FOR NON-COMPLIANCE

Transition Plan Database Facilities

5429	Kubota Garden	Interior	Restroom Unisex	Break Room	Grab Bar Rear	12" from centerline on narrow side?	4	No	NO	Insufficient distance.	3-Restrooms	Position grab bar at compliant distance on both sides from centerline of water closet.	17" minimum on wall side and 24" minimum on open side from centerline of water closet.	3-Low	4274014
5432	Kubota Garden	Interior	Restroom Unisex	Break Room	Grab Bar Side	Dim. end to wall	13.5	NO	NO	Too far.	3-Restrooms	Replace grab bar with a bar that is longer or relocate rear wall. Side grab bar shall be 54" minimum from back wall to the front of the grab bar.	42" minimum located 12" from the rear wall. Side grab bar shall be 54" minimum from back wall to the front of the grab bar.	3-Low	4274015
5435	Kubota Garden	Interior	Restroom Unisex	Break Room	Bench, Non-Transfer	Dim. depth	9.5	NO	NO	Insufficient depth	3-Restrooms	Replace bench.	20"-24"	3-Low	4274022
5437	Kubota Garden	Interior	Restroom Unisex	Break Room	Bench, Non-Transfer	Back support provided?		NO	NO	None provided	3-Restrooms	Provide a bench with a back support that extends from a point 2 inches maximum above the seat surface to a point 18 inches minimum above the seat surface.		3-Low	4274021
5438	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Signage, Designation	Braille provided?		NO	NO	No Braille provided.	2-Services	Replace the signage with compliant signage that has tactile letters and Braille. Mount the signage on the left side of the door.		3-Low	4274024
5442	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Door/Gate	Clearance, door opening height	79.25	NO	NO	Too low.	3-Restrooms	Replace the doorway with a compliant vertical clearance.	80" minimum	2-Moderate	4274025
5445	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Door/Gate	Fixed door stop provided?	Yes	NO	NO	Door stop is located in smooth surface of door.	3-Restrooms	Remove door stop.	10" minimum AFF	3-Low	No photo
5448	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Door/Gate	Opening force	12	NO	NO	Too high.	3-Restrooms	Adjust the door closer to the required amount of force allowed.	5 lbs. maximum	3-Low	No photo
5449	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Water Closet	Clearance, perpendicular	50	NO	NO	Insufficient clearance	3-Restrooms	Relocate bench out of perpendicular clearance.	56" minimum	3-Low	4274021
5451	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Water Closet	Dim. sidewall to centerline	15.5	NO	NO	Too close.	3-Restrooms	Relocate the toilet so that it is within the required distance from the side wall.	16" to 18"	2-Moderate	4274029
5452	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Water Closet	Grab bars provided?	No	NO	NO	None provided.	3-Restrooms	Install grab bars on the side and rear walls.	34" maximum AFF	3-Low	4274029
5455	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Lavatory Sink	Dim. height	34.75	NO	NO	Too high.	3-Restrooms	Lower lavatory sink.		2-Moderate	4274031
5457	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Lavatory Sink	Pipes protected?	No	NO	NO	Not wrapped.	3-Restrooms	Wrap or insulate the drain and supply lines to protect against contact.		3-Low	4274031
5458	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Mirror	Dim. height to bottom	45	NO	NO	Too high.	3-Restrooms	Lower bottom edge of reflective surface.	40" maximum AFF	3-Low	4274032
5459	Kubota Garden	Interior	Restroom Unisex	Left in breakroom	Dispenser, P.T.	Dim. height of operable part	54.5	NO	NO	Too high	3-Restrooms	Relocate the dispenser to the correct height.	48" maximum	3-Low	4274033

Engaging New and Diverse Audiences in the National Parks: An Exploratory Study of Current Knowledge and Learning Needs

Rebecca Stanfield McCown, Daniel Laven, Robert Manning, and Nora Mitchell

Introduction

IN RECENT YEARS, THE NATIONAL PARK SERVICE (NPS) HAS INITIATED PROGRAMS to more effectively engage diverse communities across the national park system. To better understand what constitutes good practice, the Conservation Study Institute conducted a multiphase research and evaluation project in partnership with the University of Vermont, the NPS Northeast Region Office of Interpretation and Education, and Boston Harbor Islands and Santa Monica Mountains national recreation areas.¹ This paper reports on research that examined the current state of knowledge and learning needs of the agency with respect to relevancy issues among new and diverse audiences.

Theoretical context

Under-representation of diverse racial and ethnic groups in national parks has been an issue for many years. Research has found consistent and substantial evidence of the under-representation of racial and ethnic minorities in outdoor recreation, particularly in national parks, and has also examined potential reasons for this under-representation and barriers to participation (Floyd 1999; Gobster 2002; Solop, Hagen, and Ostergren 2003; Shinew and Floyd 2005). If communities of color continue to be under-represented in the national parks, it will diminish the ability of national parks and NPS to maintain their relevancy in an increasingly diverse American society.

The NPS Northeast Region convened a conference in 2005 and published an associated report, titled *Keeping Parks Relevant in the 21st Century*, which developed a framework and identified key themes for addressing issues of diversity (Mitchell et al. 2006). More recently, relevancy, including issues of diversity and inclusion, has been highlighted as a top priority for NPS by Director Jon Jarvis.

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ENGAGING AUDIENCES IN NATIONAL PARKS REPORT

Research has shown that there are substantial differences in national park visitation based on race and ethnicity. A nationwide survey conducted in 2000 found that 13% of blacks and 27% of Hispanics reported visiting a national park in the last two years, compared with 36% of whites (Solop, Hagen, and Ostergren 2003). A review of surveys conducted at national parks during the summer of 2010 showed that an overwhelming majority of visitors, often as high as 90% or more, are white (University of Idaho Parks Studies Unit 2010). Moreover, the workforce of NPS is approximately 80% white (Partnership for Public Service 2007).

Research has begun to explore potential reasons for under-representation of racial/ethnic minorities in national parks and outdoor recreation, identify barriers to visitation among racial/ethnic minorities, and understand differences in recreation choices and preferences between people of color and whites (Manning 2011).² Research has focused on socioeconomic differences between communities of color and whites (Johnson and Floyd 2006), differing cultural norms and socialization practices among communities of color (Ho et al. 2005), and contemporary forms of discrimination impacting communities of color (Philipp 1999; 2000) as potential reasons for under-representation of communities of color in national parks (Floyd 1999). Barriers to visitation by people of color can include transportation, knowledge, expense (both internal to parks and external), and the interpretative themes of parks (Payne et al. 2002; Tinsley et al. 2002).

Study methods

This study used qualitative, semi-structured interviews with NPS staff and select individuals from other organizations. The focus of these interviews, and foundation of the semi-structured questions, was to identify or determine (1) past and present programs designed to enhance cultural diversity in national parks, (2) the success or failure of those programs, (3) reasons for success or failure, (4) NPS goals and objectives regarding relevancy in the 21st century, and (5) reasons for under-representation of communities of color in national parks.

A total of 25 qualitative interviews were conducted for this project. Study participants were purposely selected because of their knowledge and experience regarding diversity issues in national parks (Maxwell 2002; Patton 2002; Berg 2007). Interviews were recorded and transcribed to allow for open-coding, a method of analysis in which qualitative data are broken into thematic categories (Miles and Huberman 1994; Coffey and Atkinson 1996). Of the participants, 16 were from NPS and 9 worked for other organizations. Study participants included superintendents, chiefs of interpretation and education, Cooperative Ecosystem Studies Unit (CESU) coordinators, park rangers, youth program coordinators, former NPS personnel, presidents of partner organizations, presidents of consulting groups, and academics. Study participants were geographically as well as racially/ethnically diverse.

Results

The findings from these interviews identified six themes key to the success of NPS diversity initiatives: (1) program sustainability, (2) inclusive interpretation and histories, (3) media and communication, (4) supportive NPS climate, (5) workforce diversity, and (6) community involvement. Subthemes that describe different aspects of the six themes were also devel-

oped from study data. The conceptual model shown in Figure 1 represents how these themes are generally connected. It is important to note that the model and associated themes are not one-dimensional. There is no identified entry point to the model because the data suggest a more comprehensive approach to addressing diversity is needed. The relationships among the themes in the model flow in both directions and all of the themes are connected through multidirectional relationships. Due to the need to comprehensively address diversity, the model is a simplified depiction of themes important not just to a single program in a park unit but to its overall management.

Theme 1: Program sustainability

So the program died for these two reasons ... because there was no sense of connection among the students and ... because it was so [hinged] on one individual that when he left, there was no way to keep the program up.

— ID#016

The notion of *program sustainability* emerged as an important part of program success for several reasons. For example, study data indicated that programs that go beyond “one-touch” (single-event) experiences appear to build more lasting relationships with community partners. One-time special-event programs may provide an entry point to new audiences, but study participants felt strongly that programs that take place over a few weeks or even months form deeper relationships. Study participants also described the ways in which program sustainability is linked with the ability to overcome budgetary and leadership changes, as well as with the development of strong partnerships. The above quote illustrates the importance of consistent leadership for programs to be successful. The three subthemes associated with program sustainability are (1) consistency in message, (2) people involved in the program, and (3) relationship-building.

Consistency of message means that everything an NPS unit does (e.g., interpretation, public information-sharing, workforce decisions) should reflect a commitment to diversity. Diversity-focused programs are one way to show a commitment to diversity, but many aspects of the park, even those seemingly not directly diversity-related, should reflect a strong commitment to this issue. According to study participants, this consistency communicates a commitment to addressing under-representation as well as efforts to be a welcoming place for people of color. For example, an NPS unit that has translated interpretive material into Spanish but has not provided facilities for extended family gatherings may not be sending a consistent message to the community because studies have shown that recreational styles between whites and people of color differ, and that facilities and sites need to be more universally designed to accommodate different styles of recreation (Chavez 2000).

People involved in the program refers to those individuals involved in the program as well as their degree of involvement. Study data strongly linked the notion of program sustainability to leadership and the individuals involved in the program. For example, numerous stories emerged from the data highlighting programs that deteriorated after a key individual left. The *people involved in the program* subtheme also refers to community members who are or could be involved in the program. Multiple members of a community can be involved to

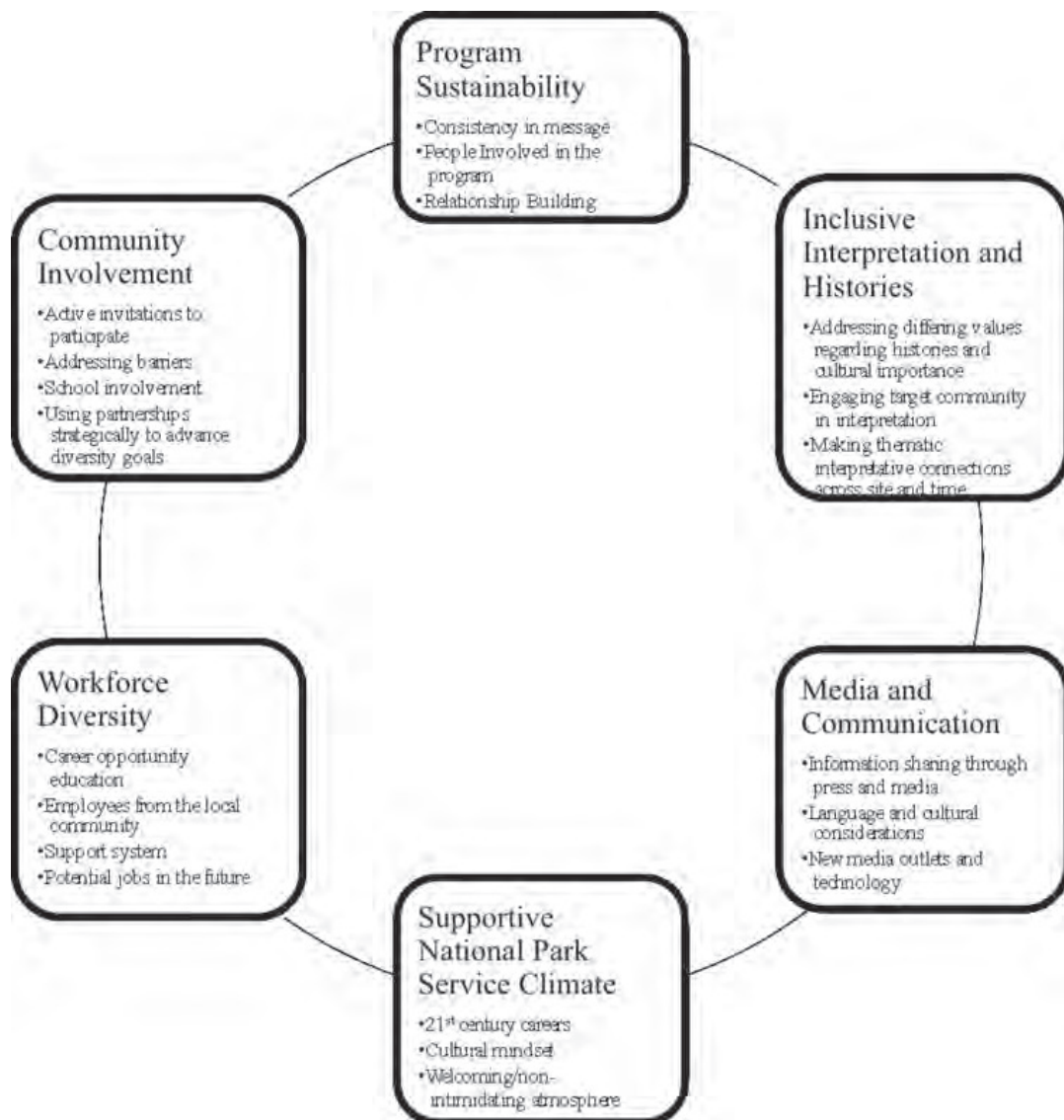


Figure 1. Relevancy model.

ensure program success and sustainability. Just like in park management, community leadership can change and impact vital programmatic connections.

Building meaningful, intentional relationships is a crucial part of program success and sustainability. While linked closely with the previous subtheme, this subtheme goes beyond individuals and refers to a more systematic approach to relationship-building. This subtheme also emphasizes the importance of long-term efforts: relationship-building takes time and parks must be committed to working and talking with community groups to build and maintain meaningful relationships. As described above, maintaining leadership and commitment is also key in developing lasting relationships with the community and other organizations.

Theme 2: Inclusive interpretation and histories

Historical significance . . . has usually been determined around criteria of architectural significance as opposed to social or historical significance. . . . Very often the diverse communities have not been at the table when the importance of things or places is determined. So criteria used for the primarily European American community may or may not be applicable to why a place or a building is of importance to my community.

— ID#004

The second theme represented in the model, *inclusive interpretation and histories*, looks at the stories interpreted at NPS units. The above quote describes one study participant’s perspective on reasons why interpretive themes have not always been meaningful to traditionally under-represented audiences. Ensuring that interpretive programs encompass the experiences of diverse people associated with a particular story is crucial for increasing visitation and relationships with traditionally under-represented communities. This theme looks at not only what stories are told, but how and by whom they are told. The three subthemes associated with *inclusive interpretation and histories* are (1) addressing different values regarding historical and cultural importance, (2) engaging the target community in interpretation, and (3) making thematic interpretative connections across sites and time.

Addressing different values regarding historical and cultural importance focuses on ensuring that diverse groups are part of the decision-making process when defining what resources are considered “important” enough to interpret or protect. As the above quote illustrates, typical approaches to historic preservation may have excluded some segments of society. Study participants noted that many structures or places that are of historical significance to minority cultural groups may be located in buildings of little architectural significance. Consequently, the stories associated with these places may not be well-documented or -interpreted. Ultimately, study participants felt that in order for park managers to know what resources to interpret and protect, they need to continue to work with community partners to better understand the values, perspectives, and experiences of different cultural groups in a particular context.

Engaging target communities in interpretation refers to the inclusion of the specific community whose story is being interpreted. Study participants felt strongly that in order to tell inclusive histories and to present stories from various cultures, members of those cultures need to be part of the process, and when possible, participate directly in the interpretation of those stories. For example, the Underground Railroad is a significant story that transcends NPS units and boundaries. As an interpretive theme, it lends itself to interpretation by a broad base of individuals, not just NPS employees. Engaging target communities in interpretation may occur through increasing workforce diversity, partnering with local historical societies, and using volunteers from the target community.

Making thematic interpretative connections across sites and time refers to the ways in which interpretation at any specific site might connect to broader stories and themes across the National Park System. For example, study participants noted that there may be opportunities to thematically link Civil War sites and themes with civil rights sites and themes. This, in turn, may create the context for interpreting the stories of not only important historical fig-

ures and events, but how they were shaped and influenced by other events and people in the nation's history. While not every site in the national park system will relate to every racial and ethnic group, connecting interpretive themes in meaningful ways across time and space may help broaden the context and relevance of specific NPS units to include constituencies that have yet to be engaged.

Theme 3: Media and communications

If we're thinking that the program alone is going to do it and we're relying on our normal promotional materials for the general public, it's a lot more hit or miss than when we're really also including active promotion through outlets that people will connect with.

— ID#005

The *media and communications* theme refers to the use of nontraditional media outlets and technology to help ensure program success. Along with the use of new and different forms of communication, study participants felt that the type of information communicated is important for welcoming and engaging diverse audiences. Providing information that is specific to target communities and fills knowledge gaps about NPS is important to engaging diverse audiences. As the above quote suggests, media and communications can not only encourage visitation to national parks but may also provide an opportunity for NPS to connect to a more technology-savvy generation. The three subthemes associated with *media and communications* are (1) information-sharing through press and media, (2) language and cultural considerations, and (3) new media outlets and technology.

Information-sharing through press and media refers to using the press and media to provide communities with information about national parks and the range of programming they offer. This information-sharing can focus on numerous aspects of the national park experience, including activities people can participate in at the park, special services a park might offer, and new exhibits and interpretive material. Study participants agreed that educating communities about NPS could be done successfully through effective and appropriate press and media. This approach would allow NPS to take advantage of information dissemination as a way to educate communities about opportunities and activities available in national park units.

Addressing cultural and language considerations is crucial when developing a media or communications plan. According to one study participant, learning about language and cultural differences and then adapting media and communications strategies appropriately will likely enable messages to reach broader communities. Several study participants noted that cultural barriers often go beyond language differences and it is important to understand ways in which different cultures access information. Traditional forms of public notices may not reach certain cultures; for example, radio spots may have more impact on one culture than another. Learning about and understanding these differences are crucial for a successful program.

Many study participants emphasized the importance of using *new media outlets and technology* for engaging youth. Study participants noted that when possible, NPS might think about incorporating newer technologies like MP3 players, Facebook, and Twitter. In

the minds of most study participants, exploring ways that technology can enhance a national park experience while bridging gaps between nature, culture, history, and technology will be increasingly important for engaging and making national parks relevant to youth, not just youth of color.

Theme 4: Supportive NPS climate

[Relevancy] is not a ‘nice-to-do,’ but a ‘must-do.’ But that needs to be followed by a willingness to fund, a willingness to experiment... We have very traditional ways of doing things in national parks and that can create cultural barriers. We need to do programs differently, offer services differently ... based on what audiences might need.

— ID#005

The *supportive NPS climate* theme refers to what under-represented park constituencies perceive as the agency’s “attitude” or “orientation” towards diversity issues in a general sense. As the above quote illustrates, the vast majority of study participants felt strongly that successfully addressing 21st-century relevancy goals requires an NPS climate or organizational culture characterized by a willingness to experiment with new ideas as well as the commitment to fund initiatives. The four subthemes associated with a *supportive NPS Climate* are (1) 21st-century careers, (2) cultural mindset, (3) supportive authorizing environment, and (4) welcoming, non-intimidating atmosphere.

Twenty-first-century careers addresses NPS’s ability to be competitive in the contemporary job market. Study participants commented on changes in society and the potential inability of NPS to remain current in the context of these changes. One study participant described it like this: “Now the estimate is that a youngster coming into the workforce may change jobs 15 to 20 times. And I don’t know that the agency is prepared for that kind of turnover.” Participants also brought up issues such as competitive salaries and desirable work locations as possible barriers to viable career opportunities.

The notion of a *cultural mindset* emerged from the data as an important aspect of a *supportive NPS Climate*. Study participants described this in different ways. For example, one agency employee stressed the need for NPS to continue to work toward broadening the perceptions that different cultural groups may have about the role of national parks as well as the mission of NPS. Another study participant described it this way: “I mean everybody’s not going to stand in front of the scenery and get the same kind of impact. And I think that’s hard for people to understand. So I don’t think you can assume that just because you provide them with transportation that there’s a foregone conclusion that they’re going to first want to come, and to have an impactful kind of experience.”

Supportive authorizing environment highlights the importance of strong and consistent support from all levels of NPS management, but particularly from the regional and national leadership environments. Study participants felt strongly that NPS personnel need to understand the importance of diversity and need to be advocates for including 21st-century relevancy and related diversity objectives and that various authorizing environments encourage, promote, and mandate diversity programs and initiatives.

Welcoming, non-intimidating atmosphere is closely linked to the *supportive authorizing environment* subtheme, but refers more broadly to the environment created by NPS employees, policies, and tradition. Creating a welcoming, non-intimidating atmosphere refers to both visitor and employee experiences. Several study participants reflected on the strong tradition and culture of NPS and the ways in which this can be intimidating, while making the work environment hard to navigate for some people of color. This notion extends to challenges that new hires, particularly personnel from minority groups, may have in navigating the agency's culture. For example, one study participant noted the struggle that people of color can sometimes have in remote locations where they are the only person of color on staff and in the community. Study participants widely agreed that support networks should be set up for new hires because creating a welcoming, non-intimidating atmosphere for park visitors also relies on supportive staff. One study participant noted all staff members need to be culturally competent because visitors can pick up on subtle, sometimes unintended signals that make them uncomfortable.

Theme 5: Workforce diversity

If you have a cross-cultural workforce, then you have a cross-cultural connection to communities and that is extremely advantageous.

— ID#002

Workforce diversity emerged from the interview data as an important theme in the overall context of NPS 21st-century relevancy and related diversity initiatives. According to many study participants, a diverse workforce demonstrates a commitment to diversity and creates a more welcoming environment for underrepresented visitor groups. Study participants felt strongly that, ultimately, the NPS workforce must reflect the ethnic and cultural diversity of the US population in order to achieve 21st-century relevancy and other related diversity goals. As the above quote suggests, a diverse workforce provides a broader range of interpretive voices and may create new avenues for connecting diverse communities with national parks. The four subthemes associated with *workforce diversity* are (1) career opportunity education, (2) employees from the local community, (3) support system, and (4) potential jobs in the future.

Career opportunity education refers to educating youth and other potential employees of NPS about the range of career opportunities available within the agency. Study participants noted that potential applicants from diverse communities may perceive NPS as only offering “ranger-type” careers. Several study participants felt that materials and/or outreach efforts that explain the possible avenues of employment in the agency may help ensure that individuals are aware of jobs and career opportunities beyond the traditional park ranger. Other study participants suggested using career fairs, developing relationships with high schools and universities, and using new media and technology to communicate with diverse audiences about the wide array of career opportunities in NPS.

Employees from the local community refers to the importance of hiring from the local community. According to many study participants, parks that are located in diverse commu-

nities have opportunities to attract local applicants. Hiring from the local community not only increases the diversity of the workforce but also strengthens bonds and relationships with key local partners. This relates to the community involvement theme discussed later in this paper. Hiring people of color from local communities can create a relationship between the park and that employee’s social network, thus providing an entry point for other individuals to visit the park. Having a diverse workforce also provided opportunities for interpretation of histories and stories by group members and people closely associated or related to a story (as discussed in Theme 3).

The *support systems* subtheme focuses on the need that many new hires and interns have for some type of support system to ensure their successful transition into NPS. Study participants suggested the use of team-hiring practices as well as team-building retreats before employees report to their duty stations. Several study participants pointed out that bonds with other employees may be especially important for new hires of color assigned to units or offices that have little or no staff diversity. In some situations, these employees may also be the only person of color in the surrounding community, underscoring the importance of connecting these employees with people who understand this situation. Providing a mentoring network was also mentioned as an important part of increasing workforce diversity because it creates a support network for new employees, helping to ensure their success in the agency.

Potential jobs in the future surfaced as a very important element for ensuring creation of a diverse workforce. Numerous study participants mentioned that interns are highly qualified and trained by the time of they complete their internship but, in many instances, there is no position or opportunity to hire them. Study participants repeatedly suggested a “pipeline” approach, whereby NPS would create direct opportunities for interns to enter the agency upon conclusion of the internship.

Theme 6: Community involvement

... I’m a proponent of going into the community and taking the park to the people. [Often] people are uncomfortable going into a new environment, and if they don’t see people of their own ... culture group, it’s harder for them to feel comfortable.

— ID#022

Community involvement emerged as an important theme associated with the ways in which national parks can effectively engage diverse communities. As the above quote illustrates, many study participants felt that community involvement can provide opportunities for diverse audiences to get to know their NPS unit and personnel. Many study participants emphasized the importance of community involvement both inside and outside park boundaries. This refers to interacting with the community within the park (e.g., special events and interpretative exhibits) and at locations and events within the community (e.g., churches and festivals). Study data associated with this theme also suggest that there may be substantial value in partnering with nontraditional groups already working to address issues of diversity. Developing partnerships with museums addressing diversity, local government agencies (e.g., housing authorities), and community groups working with communities of color (e.g., grassroots organizations, nonprofit groups). The four subthemes associated with *communi-*

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ty involvement are (1) active invitations to participate, (2) addressing barriers, (3) school involvement, and (4) using partnerships strategically to advance diversity goals.

Active invitations to participate requires more than just being open to visitors, but actively going into the community and reaching out to underserved audiences. A majority of study participants felt that providing communities with the opportunity to get to know the park, its mission, and personnel in a comfortable, familiar setting (e.g., local schools, recreation centers, churches) can help build a meaningful relationship between communities and national park units as a whole.

Addressing barriers to park visitation emerged as an important subtheme. Study participants felt strongly that park managers need to understand and respond to the challenges that some groups face in terms of visitation. For example, several study participants identified the lack of transportation as a potential barrier in some instances. This involves getting to know the specific needs of the community and crafting programs that respond to them.

School involvement also emerged as an important subtheme. Many of the programs that study participants felt had been successful involved schools, particularly those that brought park personnel into the school and used this opportunity to encourage full family visitation. Study data underscored the importance of engaging children to get whole families involved in park activities.

Using partnerships strategically to advance diversity goals emerged in many of the themes but primarily when study participants described initiatives that were designed to involve and engage communities. Study participants felt that NPS could reach beyond traditional partner groups and work with community organizations, such as churches and community recreation centers, to reach diverse audiences. NPS might also consider partnerships with organizations already addressing under-representation of people of color in other areas. Museums and zoos, for example, are developing programs and initiatives to increase minority visitation.

Conclusion

Previous research on the under-representation of people of color in national parks has focused mostly on visitation. Results from this study show that visitation is only one aspect of under-representation. Study participants spoke to the importance of addressing not only the lack of visitation by people of color but also workforce diversity and the role of national parks in the social fabric of local communities. To engage people of color in national parks, NPS staff will need to create welcoming environments that are inclusive and reflective of local and/or target communities. Moreover, for parks to accomplish those goals, they must develop long-term and dynamic relationships with local communities. Creating these kinds of welcoming environments, and, even more importantly, sustaining deep and meaningful relationships with communities of color, will require a highly culturally competent NPS workforce. Studies like this one—especially in the context of the Second Century Commission report and the director’s associated “Call to Action”—can be used to advance NPS cultural competency in very specific ways.

Findings from this study, for example, reframe the issue of under-representation as not just about visitation but also about the role of national parks in communities and society at

large. The Conservation Study Institute is using these study findings, along with related efforts, to initiate a “community of practice” focused on the successful engagement of diverse communities.³ Communities of practice are “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting” (Wenger et al. 2002). Institute projects assisting in the developmental evaluation of youth programming across NPS (including many of the Massachusetts-area national park units and Grand Teton National Park) are bringing together youth program practitioners to facilitate sharing of innovations, lessons learned, and promising practices. By sharing the experiences and findings from evaluation efforts, youth program practitioners are able to design and implement programming utilizing the best resources available and building on the experience of other practitioners.

Study findings can also be understood as intended long-term outcomes that result from engagement programs. The study data also emphasized the importance of addressing the issue of diversity and under-representation in a more comprehensive and systematic manner. The six themes identified in the paper should be addressed concurrently and with an integrated approach, when possible. Focusing on just one theme will likely not lead parks to effectively address broader issues of diversity and relevancy in NPS. All of the themes and subthemes identified in this study (as presented in Figure 1) interact, and therefore NPS engagement and diversity efforts will need to be cross-cutting to ultimately be effective.

Endnotes

1. See Rebecca Stanfield McCown, “Evaluation of National Park Service 21st Century relevancy initiatives: Case studies addressing racial and ethnic diversity in the National Park Service,” PhD dissertation, University of Vermont, 2011.
2. Please see chapter 2 of Manning 2011 for a review of the literature.
3. Contact the Conservation Study Institute for more information about current projects: stewardship@nps.gov or visit www.nps.gov/csi/.

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36 PRESERVATION BRIEFS

Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes

Charles A. Birnbaum, ASLA



U.S. Department of the Interior
National Park Service
Cultural Resources
Preservation Assistance



Cultural landscapes can range from thousands of acres of rural tracts of land to a small homestead with a front yard of less than one acre. Like historic buildings and districts, these special places reveal aspects of our country's origins and development through their form and features and the ways they were used. Cultural landscapes also reveal much about our evolving relationship with the natural world.

A *cultural landscape* is defined as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values." There are four general types of cultural landscapes, not mutually exclusive: *historic sites*, *historic designed landscapes*,

historic vernacular landscapes, and *ethnographic landscapes*. These are defined on the Table on page 2.¹

Historic landscapes include residential gardens and community parks, scenic highways, rural communities, institutional grounds, cemeteries, battlefields and zoological gardens. They are composed of a number of character-defining features which individually or collectively contribute to the landscape's physical appearance as they have evolved over time. In addition to vegetation and topography, cultural landscapes may include water features such as ponds, streams, and fountains; circulation features such as roads, paths, steps, and walls; buildings; and furnishings, including fences, benches, lights and sculptural objects.



Figure 1: The New York Peace Monument atop Lookout Mountain in the 8,100 acre Chickamauga and Chattanooga National Military Park, Chattanooga, Tennessee, commemorates the reconciliation of the Civil War between the North and South. The strategic high point provides panoramic views to the City of Chattanooga and the Moccasin Bend. Today, it is recognized for its cultural and natural resource value. The memorial, which was added in 1910 is part of this landscape's historic continuum. (courtesy Sam Abell and National Geographic).

DEFINITIONS

Historic Designed Landscape - a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition. The landscape may be associated with a significant person(s), trend, or event in landscape architecture; or illustrate an important development in the theory and practice of landscape architecture. Aesthetic values play a significant role in designed landscapes. Examples include parks, campuses, and estates.

Historic Vernacular Landscape - a landscape that evolved through use by the people whose activities or occupancy shaped that landscape. Through social or cultural attitudes of an individual, family or a community, the landscape reflects the physical, biological, and cultural character of those everyday lives. Function plays a significant role in vernacular landscapes. They can be a single property such as a farm or a collection of properties such as a district of historic farms along a river valley. Examples include rural villages, industrial complexes, and agricultural landscapes.

Historic Site - a landscape significant for its association with a historic event, activity, or person. Examples include battlefields and president’s house properties.

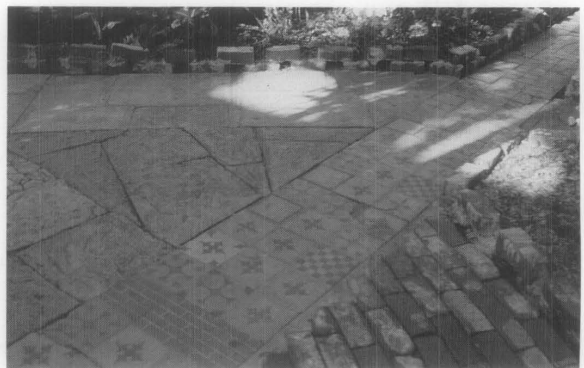
Ethnographic Landscape - a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, religious sacred sites and massive geological structures. Small plant communities, animals, subsistence and ceremonial grounds are often components.

Most historic properties have a cultural landscape component that is integral to the significance of the resource. Imagine a residential district without sidewalks, lawns and trees or a plantation with buildings but no adjacent lands. A historic property consists of all its cultural resources — landscapes, buildings, archeological sites and collections. In some cultural landscapes, there may be a total absence of buildings.

This Preservation Brief provides preservation professionals, cultural resource managers, and historic property owners a step-by-step process for preserving historic designed and vernacular landscapes, two types of cultural landscapes. While this process is ideally applied to an entire landscape, it can address a single feature such as a perennial garden, family burial plot, or a sentinel oak in an open meadow. This Brief provides a framework and guidance for undertaking projects to ensure a successful balance between historic preservation and change.

Developing a Strategy and Seeking Assistance

Nearly all designed and vernacular landscapes evolve from, or are often dependent on, natural resources. It is these interconnected systems of land, air and water,



Figures 2-4: Character-defining landscape features (top to bottom): “Boot Fence” near D. H. Lawrence Ranch, Questa, New Mexico, 1991 (courtesy Cheryl Wagner); paving detail at Ernest Hemingway House National Historic Site, Key West, Florida, 1994 (courtesy author); and, tree planting detail for Jefferson Memorial Park, St. Louis, Missouri (courtesy Office of Dan Kiley)

vegetation and wildlife which have dynamic qualities that differentiate cultural landscapes from other cultural resources, such as historic structures. Thus, their documentation, treatment, and ongoing management require a comprehensive, multi-disciplinary approach.

Today, those involved in preservation planning and management for cultural landscapes represent a broad array of academic backgrounds, training, and related

project experience. Professionals may have expertise in landscape architecture, history, landscape archeology, forestry, agriculture, horticulture, pomology, pollen analysis, planning, architecture, engineering (civil, structural, mechanical, traffic), cultural geography, wildlife, ecology, ethnography, interpretation, material and object conservation, landscape maintenance and management. Historians and historic preservation professionals can bring expertise in the history of the landscape, architecture, art, industry, agriculture, society and other subjects. Landscape preservation teams, including on-site management teams and independent consultants, are often directed by a landscape architect with specific expertise in landscape preservation. It is highly recommended that disciplines relevant to the landscapes' inherent features be represented as well.

Additional guidance may be obtained from State Historic Preservation Offices, local preservation commissions, the National Park Service, local and state park agencies, national and state chapters of the American Society of Landscape Architects, the Alliance for Historic Landscape Preservation, the National Association of Olmsted Parks, and the Catalog of Landscape Records in the United States at Wave Hill among others.²

A range of issues may need to be addressed when considering how a particular cultural landscape should be treated. This may include the in-kind replacement of declining vegetation, reproduction of furnishings, rehabilitation of structures, accessibility provisions for people with disabilities, or the treatment of industrial properties that are rehabilitated for new uses.

Preservation Planning for Cultural Landscapes

Careful planning prior to undertaking work can help prevent irrevocable damage to a cultural landscape. Professional techniques for identifying, documenting, evaluating and preserving cultural landscapes have advanced during the past 25 years and are continually being refined. Preservation planning generally involves the following steps: historical research; inventory and documentation of existing conditions; site analysis and evaluation of integrity and significance; development of a cultural landscape preservation approach and treatment plan; development of a cultural landscape management plan and management philosophy; the development of a strategy for ongoing maintenance; and preparation of a record of treatment and future research recommendations.

The steps in this process are not independent of each other, nor are they always sequential. In fact, information gathered in one step may lead to a re-examination or refinement of previous steps. For example, field inventory and historical research are likely to occur simultaneously, and may reveal unnoticed cultural resources that should be protected.

The treatment and management of cultural landscape should also be considered in concert with the management of an entire historic property. As a result, many other studies may be relevant. They include management plans, interpretive plans, exhibit design, historic structures reports, and other.

CULTURAL LANDSCAPE REPORTS

A Cultural Landscape Report (CLR) is the primary report that documents the history, significance and treatment of a cultural landscape. A CLR evaluates the history and integrity of the landscape including any changes to its geographical context, features, materials, and use.

CLR's are often prepared when a change (e.g. a new visitor's center or parking area to a landscape) is proposed. In such instances, a CLR can be a useful tool to protect the landscape's character-defining features from undue wear, alteration or loss. A CLR can provide managers, curators and others with information needed to make management decisions.

A CLR will often yield new information about a landscape's historic significance and integrity, even for those already listed on the National Register. Where appropriate, National Register files should be amended to reflect the new findings.

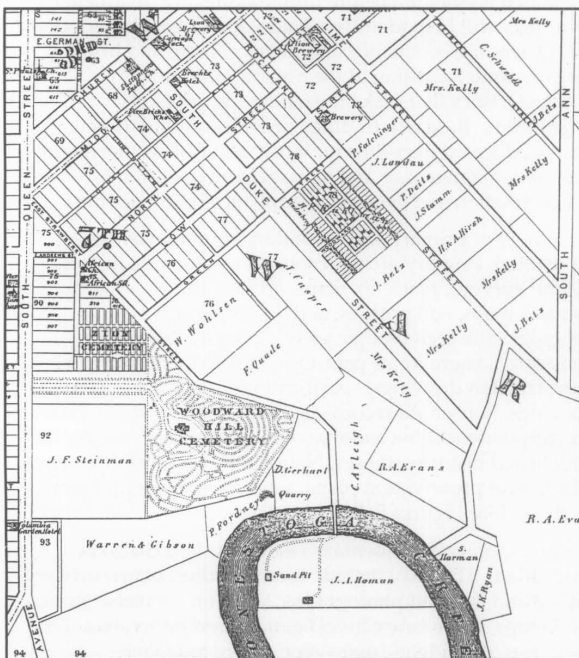
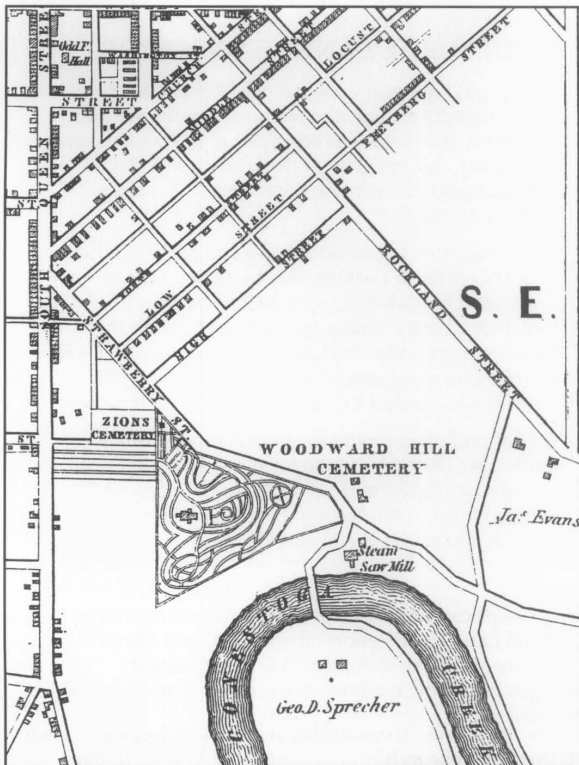
These steps can result in several products including a Cultural Landscape Report (also known as a Historic Landscape Report), statements for management, interpretive guide, maintenance guide and maintenance records.

Historical Research

Research is essential before undertaking any treatment. Findings will help identify a landscape's historic period(s) of ownership, occupancy and development, and bring greater understanding of the associations and characteristics that make the landscape or history significant. Research findings provide a foundation to make educated decisions for work, and can also facilitate ongoing maintenance and management operations, interpretation and eventual compliance requirements.

A variety of primary and secondary sources may be consulted. Primary archival sources can include historic plans, surveys, plats, tax maps, atlases, U. S. Geological Survey maps, soil profiles, aerial photographs, photographs, stereoscopic views, glass lantern slides, postcards, engravings, paintings, newspapers, journals, construction drawings, specifications, plant lists, nursery catalogs, household records, account books and personal correspondence. Secondary sources include monographs, published histories, theses, National Register forms, survey data, local preservation plans, state contexts and scholarly articles. (See Figures 5-7, page 4.)

Contemporary documentary resources should also be consulted. This may include recent studies, plans, surveys, aerial and infrared photographs, Soil Conservation Service soil maps, inventories, investigations and interviews. Oral histories of residents, managers, and maintenance personnel with a long tenure or historical association can be valuable sources of information about changes to a landscape over many years. (Figures 8-9, page 4) For properties listed in the National Register, nomination forms should be consulted.



Figures 5-7: Atlases and aerial photographs were useful for understanding the evolution of burial grounds in Lancaster County, Pennsylvania. Comparing the plans from the 1864 and 1875 atlases (courtesy Lancaster County Historical Society) with a 1980 aerial photograph (courtesy Lancaster County Planning Commission) revealed the growth and development of Woodward Hill Cemetery and its geographic context for over a century.

Figures 8, 9: Mary Smith Nelson spent her childhood at the Zane Grey family compound in Lackawaxen, Pennsylvania. Recently, her recollections of nearly eighty years ago helped landscape architects to document the evolution of this cultural landscape. These oral memoirs have since been confirmed by archeological and archival findings. (courtesy National Park Service, Zane Grey House Archives and LANDSCAPES)



Figure 10: Traditional land uses are often the key to long term preservation. Therefore, a knowledge of prior landscape management practices is essential as part of the research phase. Land use patterns were often the result of traditional activities such as agriculture, fishing or mining. In Hanalei, Hawaii for example, taro fields are important because they reflect the continuity of use of the land over time. (courtesy Land and Community Associates)

Preparing Period Plans

In the case of designed landscapes, even though a historic design plan exists, it does not necessarily mean that it was realized fully, or even in part. Based on a review of the archival resources outlined above, and the extant landscape today, an *as-built period plan* may be delineated. For all successive tenures of ownership, occupancy and landscape change, *period plans* should be generated (see Figure 13, page 6). Period plans can document to the greatest extent possible the historic appearance during a particular period of ownership, occupancy, or development. Period plans should be based on primary archival sources and should avoid conjecture. Features that are based on secondary or less accurate sources should be graphically differentiated. Ideally, all referenced archival sources should be annotated and footnoted directly on *period plans*.

Where historical data is missing, period plans should reflect any gaps in the CLR narrative text and these limitations considered in future treatment decisions (See Treatments for Cultural Landscapes on page 13.)

Inventorying and Documenting Existing Conditions

Both physical evidence in the landscape and historic documentation guide the historic preservation plan and treatments. To document existing conditions, intensive field investigation and reconnaissance should be conducted at the same time that documentary research is being gathered. Information should be exchanged among preservation professionals, historians, technicians, local residents, managers and visitors.

To assist in the survey process, National Register Bulletins have been published by the National Park Service to aid in identifying, nominating and evaluating designed and rural historic landscapes. Additionally, Bulletins are available for specific landscape types such as battlefields, mining sites, and cemeteries.⁶

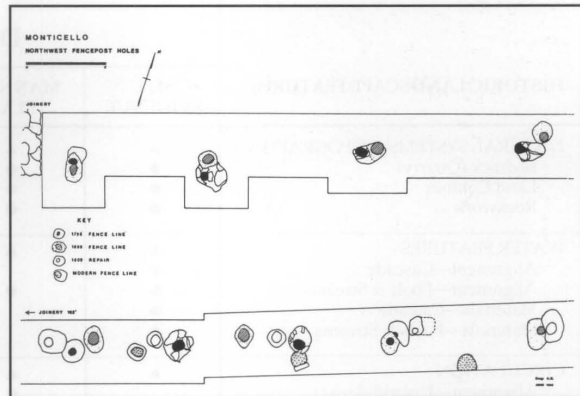


Figure 11: Landscape archeology is an important research tool that can provide location, dating and detail verification for landscape features. At Monticello, the estate of Thomas Jefferson in Charlottesville, Virginia, archeological research has employed both excavational and non-invasive methods. This has included aerial photography, soil resistivity, transect and stratified sampling and photogrammetric recording. As illustrated in the plan above, fence post spacing and alignment can be confirmed with a transect trenching technique.³ (courtesy Thomas Jefferson Memorial Foundation)

Although there are several ways to inventory and document a landscape, the goal is to create a baseline from a detailed record of the landscape and its features as they exist at the present (considering seasonal variations).⁷ Each landscape inventory should address issues of boundary delineation, documentation methodologies and techniques, the limitations of the inventory, and the scope of inventory efforts. These are most often influenced by the timetable, budget, project scope, and the purpose of the inventory and, depending on the physical qualities of the property, its scale, detail, and the interrelationship between natural and cultural resources. For example, inventory objectives to develop a treatment plan may differ considerably compared to those needed to develop an ongoing maintenance plan. Once the criteria for a landscape inventory are developed and tested, the methodology should be explained.

Preparing Existing Condition Plans

Inventory and documentation may be recorded in plans, sections, photographs, aerial photographs, axonometric perspectives, narratives, video—or any combination of techniques. Existing conditions should generally be documented to scale, drawn by hand or generated by computer. The scale of the drawings is often determined by the size and complexity of the landscape. Some landscapes may require documentation at more than one scale. For example, a large estate may be documented at a small scale to depict its spatial and visual relationships, while the discrete area around an estate mansion may require a larger scale to illustrate individual plant materials, pavement patterns and other details. The same may apply to an entire rural historic district and a fenced vegetable garden contained within. (See Figures 14-15, page 8).

When landscapes are documented in photographs, *registration points* can be set to indicate the precise location and orientation of features. Registration points should correspond to significant forms, features and spatial relationships within the landscape and its surrounds (see

HISTORIC LANDSCAPE FEATURES	DEGREE OF DOCUMENTATION					
	SITE EVIDENCE	MANNING PLAN	HISTORIC PHOTOS	LETTERS 1914-1946	1955-1993 RECORDS	SECONDARY SOURCES
NATURAL SYSTEMS/TOPOGRAPHY Bedrock (Quarry) Land Contour Rockwork	▲ ● ● ●	▲ ● ● ●	▲ ● ● ●	▲ ● ● ●	▲ ● ● ●	?
WATER FEATURES Alignment—Cascade Alignment—Pools & Streams Materials—Cascade Materials—Pools & Streams	▲ ● ● ● ●	▲ ● ● ● ●	▲ ● ● ● ●	▲ ● ● ● ●	▲ ● ● ● ●	?
CIRCULATION Alignment—Upland Area Alignment—Perimeter Paths Alignment—Internal Paths Materials—Upland Area Materials—Perimeter Paths Materials—Internal Paths	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	?
SPATIAL RELATIONSHIPS Garden Site (Quarry) Viewshed (Cuyahoga Valley) Vista over Garden from Terrace Views within Garden Views within Upland Views from Croquet Lawn	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	?
VEGETATION Native Forest Trees Ornamental Shrubs in Garden Groundcovers in Garden Herbaceous Plants in Garden	▲ ● ● ● ●	▲ ● ● ● ●	▲ ● ● ● ●	▲ ● ● ● ●	▲ ● ● ● ●	?
SITE FURNISHINGS Lanterns Seats	▲ ● ●	▲ ● ●	▲ ● ●	▲ ● ●	▲ ● ●	?
STRUCTURES Torii Gate Cistern Stone Wall Concealing Cistern Lagon Bridges Umbrella House Trellis/Lattice	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	▲ ● ● ● ● ●	?

Figure 12: This chart measures available documentation for character-defining features in the Japanese Garden at Stan Hywet Hall, Akron, Ohio designed by Warren Manning. Areas with little or no historic documentation are noted, thus identifying areas where future treatment options may be restricted. As illustrated, restoration or reconstruction are viable alternatives based on the rich research findings. (courtesy Stan Hywet Hall Foundation, Inc. and Doell and Doell)

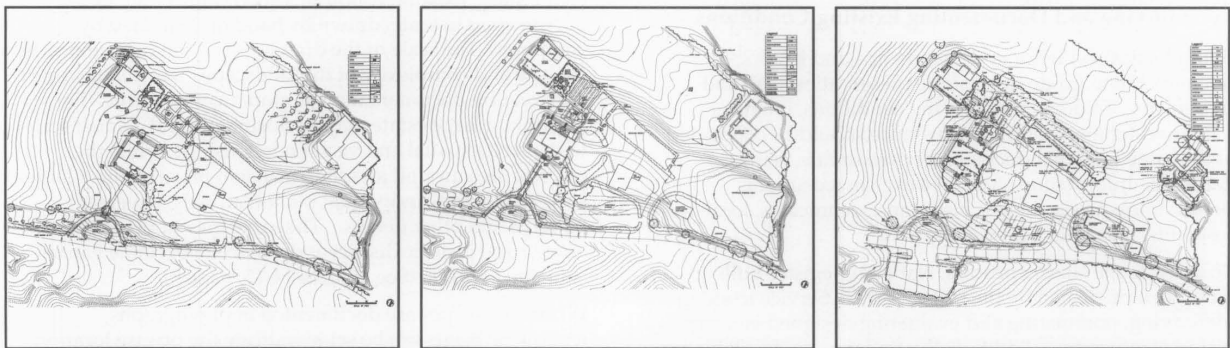


Figure 13: Period plans show the evolution of Aspet, the home of Augustus St. Gaudens, Cornish, New Hampshire. Plans were developed at two scales: first for the entire estate's development, and second for the core area around the house, studio and gardens. For both, plans were generated for five time periods: 1885-1903, 1903-1907, 1907-1926, 1926-1965 and 1965-1992. Illustrated above are the 1885-1903, 1907-1926, and the 1926-1965 plans for the core area. (courtesy National Park Service, North Atlantic Region and Pressley Associates)

READING THE LANDSCAPE

A noted geographer stated, “The attempt to derive meaning from landscapes possesses overwhelming virtue. It keeps us constantly alert to the world around us, demanding that we pay attention not just to some of the things around us but to all of them—the whole visible world in all of its rich, glorious, messy, confusing, ugly, and beautiful complexity.”⁴

Landscapes can be read on many levels—landscape as nature, habitat, artifact, system, problem, wealth, ideology, history, place and aesthetic.⁵ When developing a strategy to document a cultural landscape, it is important to attempt to read the landscape in its context of place and time. (See Figures 16-17, page 8)

Reading the landscape, like engaging in archival research, requires a knowledge of the resource and subject area as well as a willingness to be skeptical. As with archival research, it may involve serendipitous discoveries.

Evidence gained from reading the landscape may confirm or contradict other findings and may encourage the observer and the historian to revisit both primary and secondary sources with a fresh outlook. Landscape investigation may also stimulate other forms of research and survey, such as oral histories or archeological investigations, to supplement what appeared on-site.

There are many ways to read a landscape—whatever approach is taken should provide a broad overview. This may be achieved by combining on-the-ground observations with a bird’s-eye perspective. To begin this process, aerial photographs should be reviewed to gain an orientation to the landscape and its setting. Aerial photographs come in different sizes and scales, and can thus portray different levels of detail in the landscape. Aerial photographs taken at a high altitude, for example, may help to reveal remnant field patterns or traces of an abandoned circulation system; or, portions of axial relationships that were part of the original design, since obscured by encroaching woodland areas. Low altitude aerial photographs can point out individual features such as the arrangement of shrub and herbaceous borders, and the exact locations of furnishings, lighting, and fence

alignments. This knowledge can prove beneficial before an on-site visit.

Aerial photographs provide clues that can help orient the viewer to the landscape. The next step may be to view the landscape from a high point such as a knoll or an upper floor window. Such a vantage point may provide an excellent transition before physically entering the cultural landscape.

On ground, evidence should then be studied, including character-defining features, visual and spatial relationships. By reviewing supporting materials from historic research, individual features can be understood in a systematic fashion that show the continuum that exists on the ground today. By classifying these features and relationships, the landscape can be understood as an artifact, possessing evidence of evolving natural systems and human interventions over time.

For example, the on-site investigation of an abandoned turn-of-the-century farm complex reveals the remnant of a native oak and pine forest which was cut and burned in the mid-nineteenth century. This previous use is confirmed by a small stand of mature oaks and the presence of these plants in the emerging secondary woodland growth that is overtaking this farm complex in decline. A ring count of the trees can establish a more accurate age. By *reading* other character-defining features—such as the traces of old roads, remnant hedgerows, ornamental trees along boundary roads, foundation plantings, the terracing of grades and remnant fences—the visual, spatial and contextual relationships of the property as it existed a century ago may be understood and its present condition and integrity evaluated.

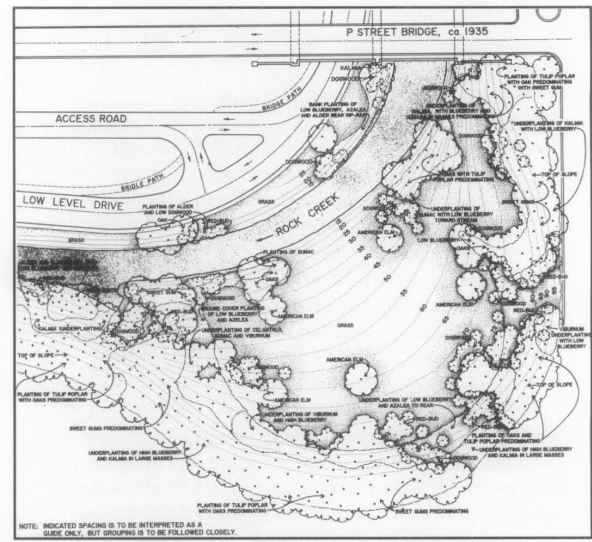
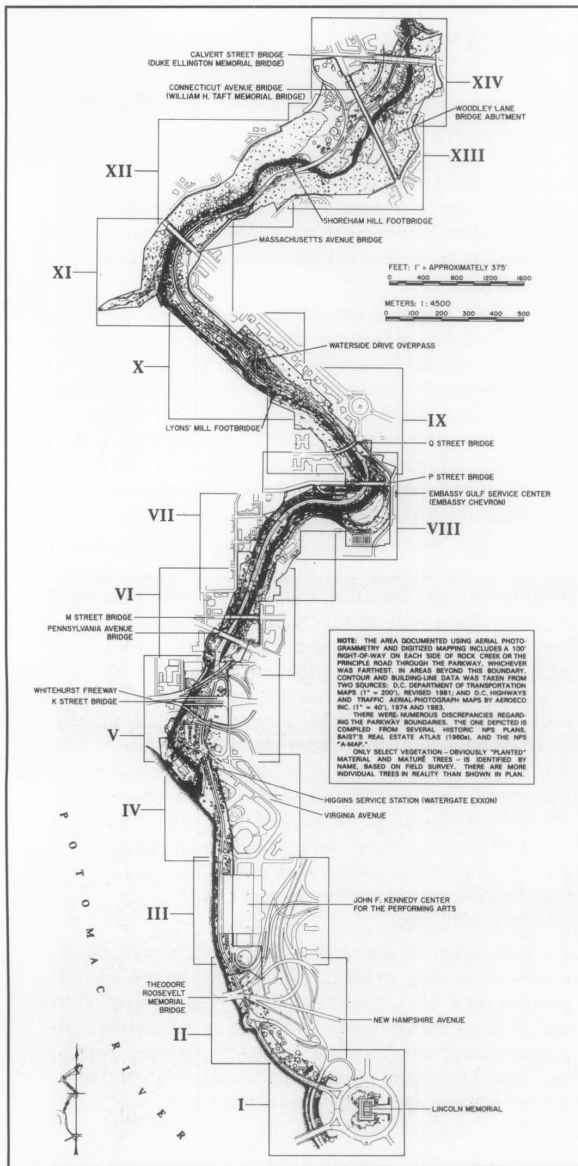
The findings of on-site reconnaissance, such as materials uncovered during archival research, may be considered primary data. These findings make it possible to inventory and evaluate the landscape’s features in the context of the property’s current condition. Character-defining features are located in situ, in relationship to each other and the greater cultural and geographic contexts.

Figure 22, page 11 for an example.) The points may also correspond to historic views to illustrate the change in the landscape to date. These locations may also be used as a management tool to document the landscape’s evolution, and to ensure that its character-defining features are preserved over time through informed maintenance operations and later treatment and management decisions.

All features that contribute to the landscape’s historic character should be recorded. These include the physical features described on page 1 (e.g. topography, circulation), and the visual and spatial relationships that are character-defining. The identification of existing plants, should be specific, including genus, species, common name, age (if known) and size. The woody, and if appropriate, herbaceous plant material should be accurately located on the existing conditions map. To ensure full representation of successional herbaceous plants, care should be taken to document the landscape in different seasons, if possible.

Treating living plant materials as a curatorial collection has also been undertaken at some cultural landscapes. This process, either done manually or by computer, can track the condition and maintenance operations on individual plants. Some sites, such as the Frederick Law Olmsted National Historic Site, in Brookline, Massachusetts have developed a field investigation numbering system to track all woody plants. (See Table, page 9) Due to concern for the preservation of genetic diversity and the need to replace significant plant materials, a number of properties are beginning to propagate historically important rare plants that are no longer commercially available, unique, or possess significant historic associations. Such herbarium collections become a part of a site’s natural history collection.

Once the research and the documentation of existing conditions have been completed, a foundation is in place to analyze the landscape’s continuity and change, determine its significance, assess its integrity, and place it within the historic context of similar landscapes.



Figures 14 and 15: Existing conditions plans for large corridor landscapes can employ a variety of documentation methodologies. For the 2-1/2 mile Rock Creek and Potomac Parkway, Washington, D.C., the Historic American Buildings Survey (HABS) used aerial photogrammetric photographs as the basis for digitized mapping and delineated drawings. Overall documentation was done at a scale of 1" = 40' with a 100' either side geographic context. Contours were shown at 2' intervals, tree canopy with trunk placement for specimen species, bridges (also drawn in detail), roads, and the creek itself. In all, there are 36 drawings measuring 34" x 44" for the project. These two sample drawings include the index to plans (above) and an area of existing conditions documentation (opposite top). (courtesy Historic American Buildings Survey)

Figures 16 and 17: Landscapes cannot be inventoried in a vacuum. Therefore, an understanding of its geographic context or setting should be part of inventory process. At Rancho Los Alamitos, Long Beach, California (middle and bottom opposite), a comparison between the 1936 aerial view with a present day aerial photograph illustrates the encroachments and adjacent developments that will affect the future treatment of visual and spatial relationships. (courtesy Rancho Los Alamitos Foundation)

HISTORIC PLANT INVENTORY

Within cultural landscapes, plants may have historical or botanical significance. A plant may have been associated with a historic figure or event or be part of a notable landscape design. A plant may be an uncommon cultivar, exceptional in size, age, rare and commercially/unavailable. If such plants are lost, there would be a loss of historic integrity and biological diversity of the cultural landscape. To ensure that significant plants are preserved, an inventory of historic plants is being conducted at the North Atlantic Region of the National Park Service.⁸ Historical landscape architects work with landscape managers and historians to gather oral and documented history on the plant's origin and potential significance. Each plant is then examined in the field by an expert horticulturist who records its name, condition, age, size, distribution, and, any notable botanic characteristics.

Plants that are difficult to identify or are of potential historical significance are further examined in the laboratory by a plant taxonomist who compares leaf, fruit, and flower characteristics with herbarium specimens for named species, cultivars and varieties. For plants species with many cultivars, such as apples, roses, and grapes, specimens may be sent to specialists for identification.

If a plant cannot be identified, is dying or in decline, and unavailable from commercial nurseries, it may be propagated. Propagation ensures that when rare and significant plants decline, they can be replaced with genetically-identical plants. Cuttings are propagated and grown to replacement size in a North Atlantic Region Historic Plant Nursery.



1. The Arnold Arboretum's preservation technician, lilac specialist, and horticulturist compare lilacs from the Vanderbilt Mansion National Historic Site in Hyde Park, New York with lilac specimens in the Arboretum's living collection. (courtesy Olmsted Center)



3. The Arnold Arboretum's horticulturist, landscape historian, and preservation technician examine shrubs at the Longfellow National Historic Site in Cambridge, MA. (courtesy Olmsted Center)



2. The Arnold Arboretum's horticulturist and preservation technician examine an enormous black locust tree at the Home of F.D. Roosevelt National Historic Site in Hyde Park, NY. (courtesy Olmsted Center)

Site Analysis: Evaluating Integrity and Significance

By analyzing the landscape, its change over time can be understood. This may be accomplished by overlaying the various period plans with the existing conditions plan. Based on these findings, individual features may be attributed to the particular period when they were introduced, and the various periods when they were present.

It is during this step that the *historic significance* of the landscape component of a historic property and its integrity are determined. Historic significance is the recognized importance a property displays when it has been evaluated, including when it has been found to meet National Register Criteria.⁹ A landscape may have several areas of historical significance. An understanding of the landscape as a continuum through history is critical in assessing its cultural and historic value. In order for the landscape to have integrity, these character-defining features or qualities that contribute to its significance must be present.

While National Register nominations document the significance and integrity of historic properties, in general, they may not acknowledge the significance of the landscape’s design or historic land uses, and may not contain an inventory of landscape features or characteristics. Additional research is often necessary to provide the detailed information about a landscape’s evolution and significance useful in making decision for the treatment and maintenance of a historic landscape. Existing National Register forms may be amended to recognize additional areas of significance and to include more complete descriptions of historic properties that have significant land areas and landscape features.

Integrity is a property’s historic identity evidenced by the survival of physical characteristics from the property’s historic or prehistoric period. The seven qualities of integrity are location, setting, feeling, association, design, workmanship and materials.¹⁰ When evaluating these qualities, care should be taken to consider change itself. For example, when a second-generation woodland overtakes an open pasture in a battlefield landscape, or a woodland edge encloses a scenic vista. For situations such as these, the reversibility and/or compatibility of those features should be considered, both individually, and in the context of the overall landscape. Together, evaluations of significance and integrity, when combined with historic research, documentation of existing conditions, and analysis findings, influence later treatment and interpretation decisions. (See Figure 21-23)

Developing a Historic Preservation Approach and Treatment Plan

Treatment may be defined as work carried out to achieve a historic preservation goal—it cannot be considered in a vacuum. There are many practical and philosophical factors that may influence the selection of a treatment for a landscape. These include the relative historic value of the property, the level of historic documentation, existing physical conditions, its historic significance and integrity, historic and proposed use (e.g. educational, interpretive, passive, active public, institutional or private), long- and short-term objectives, operational and code requirements (e.g. accessibility, fire, security) and costs for anticipated capital improvement, staffing and maintenance. The value of any significant archeological and natural resources

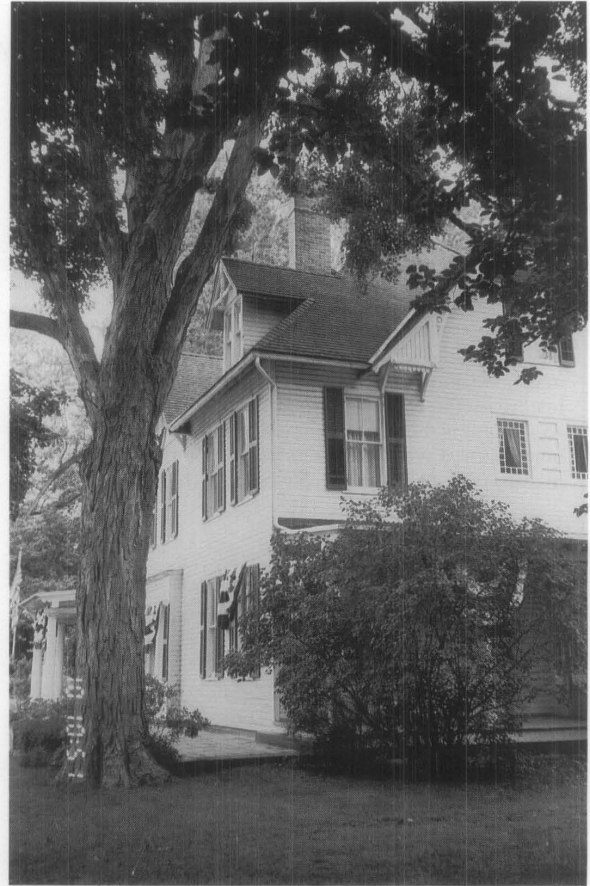


Figure 18: At Lawnfield, the home of President James A. Garfield near Cleveland, Ohio, the Sugar Maple that shadowed the porch during Garfield’s 1880 “Front Porch Campaign” is in decline. Cuttings were taken from the historically significant tree by the Holden Arboretum and the National Park Service for eventual in-kind replacement. (courtesy NPS, Midwest Region)



Figure 19: The landscape of Lyndhurst, Tarrytown, New York is significant in American culture and meets Criterion C of the National Register because it embodies the distinctive character of a type and period in American landscape architecture, known as early Picturesque; it possesses high artistic value; and it is the work of a recognized master gardener, Ferdinand Mangold. (courtesy National Trust for Historic Preservation)

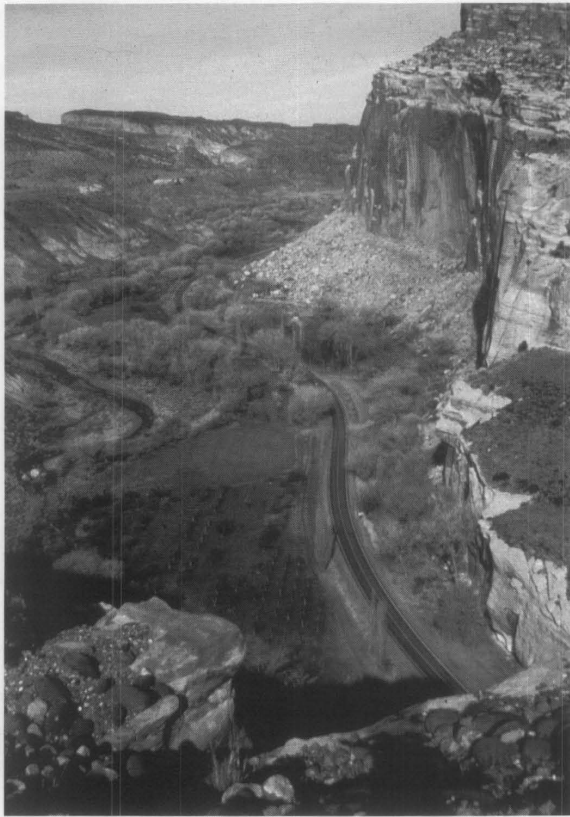
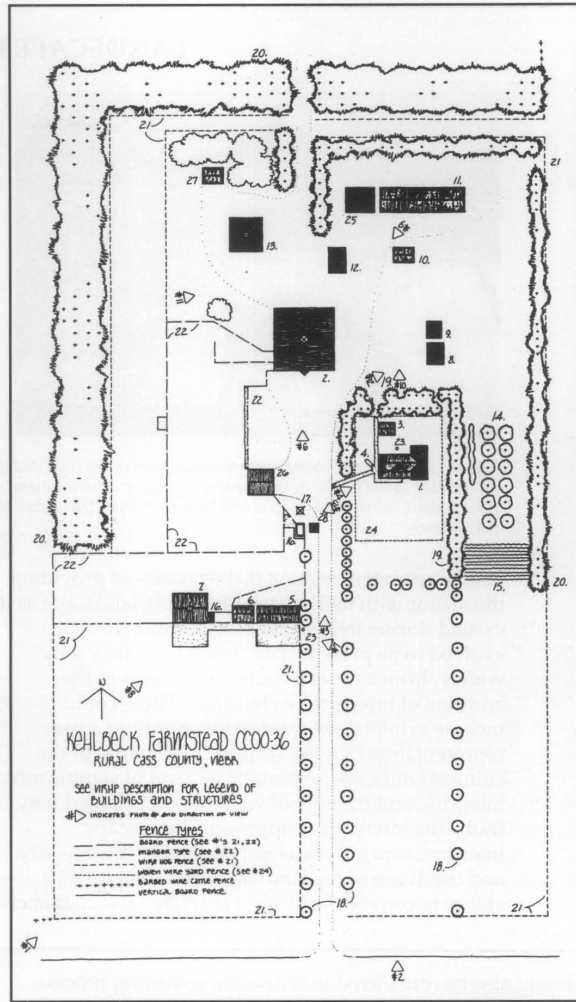


Figure 20: Cultural landscapes often contain plant communities such as orchards or meadows—both of which may or may not require a management intervention. When analyzing a landscape, it is important to recognize the present-day biodiversity of these resources—for example at the Fruita Rural Historic District in Capitol Reef National Park in Utah, the landscape contains 2,500 fruit trees associated with settlement and agriculture on the Colorado Plateau (courtesy D. White).



Figure 21: Integrity can involve both continuity and change. This can be evidenced by a detailed review of materials. Although the surface material has changed on some roads through the Port Oneida (near Empire, Michigan) community, the character-defining alignment, width and rows of Sugar Maple trees remain intact. (courtesy NPS, Midwest Region).



Figures 22 and 23: The plan for the Kehlbeck Farmstead, located in Cass County in Southeastern Nebraska, illustrates a well-planned, and aesthetically arranged general farm complex of the twentieth century. The farmstead is composed of 23 contributing and 5 non-contributing resources. Integrity was judged uniformly high because many character-defining resources were present and the visual and spatial relationships intact. Note the varied graphic techniques used to document a variety of fence types, and, the key to photographs illustrating the various landscape features and spatial relationships. The photograph above, labeled #3 on the farmstead, is looking north along the farm lane allee. (courtesy National Register Files)

LANDSCAPE INTERPRETATION



Figures A and B: Archeology and restoration of the Privy Garden at Hampton Court Palace gardens, England. The project is being interpreted to the public in the garden, an indoor exhibition and a multimedia show. The outdoor interpretive display, (above left) includes period plans, aerial photographs and historic images that detail the history of the garden and current work, 1994. (courtesy the author)

Landscape interpretation is the process of providing the visitor with tools to experience the landscape as it existed during its period of significance, or as it evolved to its present state. These tools may vary widely, from a focus on existing features to the addition of interpretive elements. These could include exhibits, self-guided brochures, or a new representation of a lost feature. The nature of the cultural landscape, especially its level of significance, integrity, and the type of visitation anticipated may frame the interpretive approach. Landscape interpretation may be closely linked to the integrity and condition of the landscape, and therefore, its ability to convey the historic character and character-

defining features of the past. If a landscape has high integrity, the interpretive approach may be to direct visitors to surviving historic features without introducing obtrusive interpretive devices such as free-standing signs. For landscapes with a diminished integrity, where limited or no fabric remains, the interpretive emphasis may be on using extant features and visual aids (e.g. markers, photographs, etc.) to help visitors visualize the resource as it existed in the past. The primary goal in these situations is to educate the visitor about the landscape's historic themes, associations and lost character-defining features or broader historical, social and physical landscape contexts.

should also be considered in the decision-making process. Therefore, a cultural landscape's preservation plan and the treatment selected will consider a broad array of dynamic and interrelated considerations. It will often take the form of a plan with detailed guidelines or specifications.

Adopting such a plan, in concert with a preservation maintenance plan (page 18-19), acknowledges a cultural landscape's ever-changing existence and the interrelationship of treatment and ongoing maintenance. Performance standards, scheduling and record keeping of maintenance activities on a day-to-day or month-to-month basis, may then be planned for. Treatment, management, and maintenance proposals can be developed by a broad range of professionals and with expertise in such fields as landscape preservation, horticulture, ecology, and landscape maintenance.

The selection of a primary treatment for the landscape, utilizing the Secretary of the Interior's Standards for the Treatment of Historic Properties, establishes an overall historic preservation approach, as well as a philosophical framework from which to operate. Selecting a treatment is based on many factors. They include management and interpretation objectives for the property as a whole, the period(s) of significance, integrity, and condition of individual landscape features.

For all treatments, the landscape's existing conditions and its ability to convey historic significance should be carefully considered. For example, the life work, design philosophy and extant legacy of an individual designer should all be understood for a designed landscape such as an estate, prior to treatment selection. For a vernacular landscape, such as a battlefield containing a largely intact mid-nineteenth century family farm, the uniqueness of that agrarian complex within a local, regional, state, and national context should be considered in selecting a treatment.

The overall historic preservation approach and treatment approach can ensure the proper retention, care, and repair of landscapes and their inherent features.¹¹ In short, the Standards act as a preservation and management tool for cultural landscapes. The four potential treatments are described in the box opposite.

Landscape treatments can range from simple, inexpensive preservation actions, to complex major restoration or reconstruction projects. The progressive framework is inverse in proportion to the retention of historic features and materials. Generally, preservation involves the least change, and is the most respectful of historic materials. It maintains the form and material of the existing landscape. Rehabilitation usually accommodates contemporary



Figure 24: On some occasions, especially larger landscapes, it is possible to have a primary treatment, with discrete, or secondary areas of another treatment. This is most common for an individual feature in a larger landscape. At the Eugene and Carlotta O'Neill Historic Site, Danville, California the primary treatment selected for the courtyard was restoration. When accommodating universal accessibility requirements, the introduction of a grass paver walk was installed which warranted the removal of a few historic shrubs. This discrete project would be considered a rehabilitation treatment. (courtesy Patricia M. O'Donnell)

TREATMENTS FOR CULTURAL LANDSCAPES

Prior to undertaking work on a landscape, a treatment plan or similar document should be developed. The four primary treatments identified in the Secretary of the Interior's Standards for the Treatment of Historic Properties¹², are :

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical or cultural values.

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.



Figures 25 and 26: When the American Elm (*Ulmus americana*) was plagued with Dutch Elm Disease many historic properties relied on the Japanese Zelkova (*Zelkova serrata*) as a substitute plant. As illustrated, the overall form and scale of these trees is really quite different, and would therefore not be an appropriate substitute plant material under a restoration or reconstruction treatment.

alterations or additions without altering significant historic features or materials, with successful projects involving minor to major change. Restoration or reconstruction attempts to recapture the appearance of a property, or an individual feature at a particular point in time, as confirmed by detailed historic documentation. These last two treatments most often require the greatest degree of intervention and thus, the highest level of documentation.

In all cases, treatment should be executed at the appropriate level reflecting the condition of the landscape, with repair work identifiable upon close inspection and/or indicated in supplemental interpretative information. When repairing or replacing a feature, every effort should be made to achieve visual and physical compatibility. Historic materials should be matched in design, scale, color and texture.

A landscape with a high level of integrity and authenticity may suggest preservation as the primary treatment. Such a treatment may emphasize protection, stabilization, cyclical maintenance, and repair of character-defining landscape features. Changes over time that are part of the landscape's continuum and are significant in their own right may be



Figure 27: The historic birch allee at Stan Hywet Hall, Akron, Ohio was suffering from borer infestation and leaf miner. Dying trees were topped and basal sprout growth encouraged. Next, trees were selectively thinned, and ultimately, when the new growth matured, older trunks were removed. Original rootstock and genetic material were preserved. As illustrated, this preservation treatment took fifteen years to realize. (courtesy Child Associates)



Figures 29: Rehabilitation was selected as the primary treatment for Columbus Park, Chicago, Illinois. Originally designed and executed between 1917 and 1920 by Jens Jensen, the waterfall, cascades, rocky brook and associated landscape, are well documented and possesses a high level of integrity. (courtesy author)

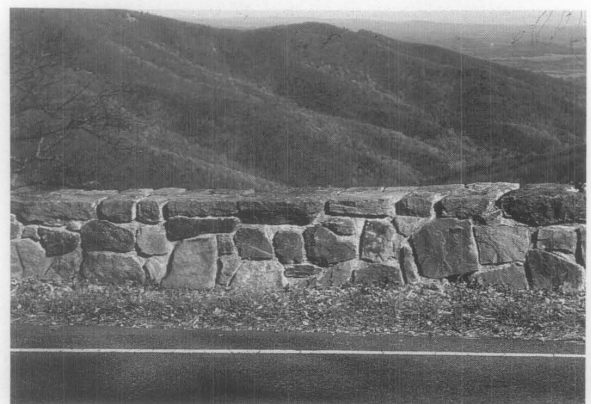


Figure 30, 31: A 75-mile portion of Skyline Drive at Shenandoah National Park overlooking the Blue Ridge Mountains of Virginia required the rehabilitation of a 22"-high, dry-laid stone wall. The new wall was built to a height of 27" – code normally requires a height of 36". The wall was constructed of precast concrete, clad with split stone and mortar joints. To achieve visual compatibility recessed mortar joints were arranged in a random pattern (courtesy Robert R. Page)



Figure 28: Patterns on the land have been preserved through the continuation of traditional uses such as the grape fields at the Sterling Vineyards in Calistoga, California. (courtesy author)



retained, while changes that are not significant, yet do not encroach upon or erode character may also be maintained. Preservation entails the essential operations to safeguard existing resources. (Figures 27-28)

Rehabilitation is often selected in response to a contemporary use or need—ideally such an approach is compatible with the landscape’s historic character and historic use. Rehabilitation may preserve existing fabric along with introducing some compatible changes, new additions and alterations. Rehabilitation may be desirable at a private residence in a historic district where the homeowner’s goal is to develop an appropriate landscape treatment for a front yard, or in a public park where a support area is needed for its maintenance operations. (Figures 29-31)

When the most important goal is to portray a landscape and its character-defining features at an exact period of time, restoration is selected as the primary treatment. Unlike preservation and rehabilitation, interpreting the landscape’s continuum or evolution is not the objective. Restoration may include the removal of features from other periods and/or the construction of missing or lost features and materials from the reconstruction period. In all cases, treatment should be substantiated by the historic research findings and existing conditions documentation. Restoration and reconstruction treatment work should avoid the creation of a landscape whose features did not exist historically. For example, if features from an earlier period did not co-exist with extant features from a later period that are being retained, their restoration would not be appropriate. (Figures 32-34)

In rare cases, when evidence is sufficient to avoid conjecture, and no other property exists that can adequately explain a certain period of history, reconstruction may be utilized to depict a vanished landscape. The accuracy of this work is critical. In cases where topography and the subsurface of soil have not been disturbed, research and existing conditions findings may be confirmed by thorough archeological investigations. Here too, those features that are intact should be repaired as necessary, retaining the original historic features to the greatest extent possible. The greatest danger in reconstruction is creating a false picture of history.

False historicism in every treatment should be avoided. This applies to individual features as well as the entire landscape. Examples of inappropriate work include the introduction of historic-looking benches that are actually a new design, a fanciful gazebo placed in what was once an open meadow, executing an unrealized historic design, or designing a historic-looking landscape for a relocated historic structure within “restoration.”

Figure 32-34: Tower Grove Park in St. Louis, Missouri, is a National Historic Landmark. The music pavilion, just north of the main drive is a circular lawn area with radiating walks, white marble busts of eminent composers, walks, and curb. The area was in general decline, especially the marble busts which were suffering from acid rain damage. Based on the excellent documentation in nineteenth century annual reports, postcards and photographic images, this area was recently restored. Illustrated above are a sample historic view, work in progress and the completed restoration project. (courtesy Tower Grove Park)

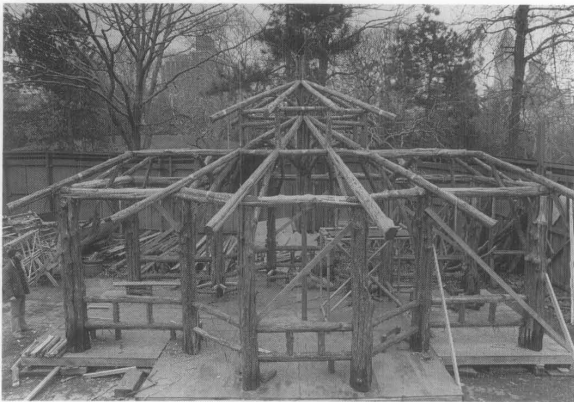


Figure 35-37: Central Park has developed an in-house historic preservation crew to undertake small projects. A specialized crew has been trained to specifically repair and rebuild rustic furnishings. As illustrated, the restoration of the Dene rustic shelter was achieved by constructing it in the Ramble compound, moving in-place opposite 67th street and completed. (courtesy Central Park Conservancy)

Developing a Preservation Maintenance Plan and Implementation Strategy

Throughout the preservation planning process, it is important to ensure that existing landscape features are retained. Preservation maintenance is the practice of monitoring and controlling change in the landscape to ensure that its historic integrity is not altered and features are not lost. This is particularly important during the research and long-term treatment planning process. To be effective, the maintenance program must have a guiding philosophy, approach or strategy; an understanding of preservation maintenance techniques; and a system for documenting changes in the landscape.

The philosophical approach to maintenance should coincide with the landscape’s current stage in the preservation planning process. A Cultural Landscape Report and Treatment Plan can take several years to complete, yet during this time managers and property owners will likely need to address immediate issues related to the decline, wear, decay, or damage of landscape features. Therefore, initial maintenance operations may focus on the stabilization and protection of all landscape features to provide temporary, often emergency measures to prevent deterioration, failure, or loss, without altering the site’s existing character.

After a Treatment Plan is implemented, the approach to preservation maintenance may be modified to reflect the objectives defined by this plan. The detailed specifications prepared in the Treatment Plan relating to the retention, repair, removal, or replacement of features in the landscape should guide and inform a comprehensive preservation maintenance program. This would include schedules for monitoring and routine maintenance, appropriate preservation maintenance procedures, as well as ongoing record keeping of work performed. For vegetation, the preservation maintenance program would also include thresholds for growth or change in character, appropriate pruning methods, propagation and replacement procedures.

To facilitate operations, a property may be divided into discrete management zones (Figure 41). These zones are sometimes defined during the Cultural Landscape Report process and are typically based on historically defined areas. Alternatively, zones created for maintenance practices and priorities could be used. Examples of maintenance zones would include woodlands, lawns, meadow, specimen trees, and hedges.

Training of maintenance staff in preservation maintenance skills is essential. Preservation maintenance practices differ from standard maintenance practices because of the focus on perpetuating the historic character or use of the landscape rather than beautification. For example, introducing new varieties of turf, roses or trees is likely to be inappropriate. Substantial earth moving (or movement of soil) may be inappropriate where there are potential archeological resources. An old hedge or shrub should be rejuvenated, or propagated, rather than removed and replaced. A mature specimen tree may require cabling and careful monitoring to ensure that it is not a threat to visitor safety. Through training programs and with the assistance of preservation maintenance specialists, each property could develop maintenance specifications for the care of landscape features.

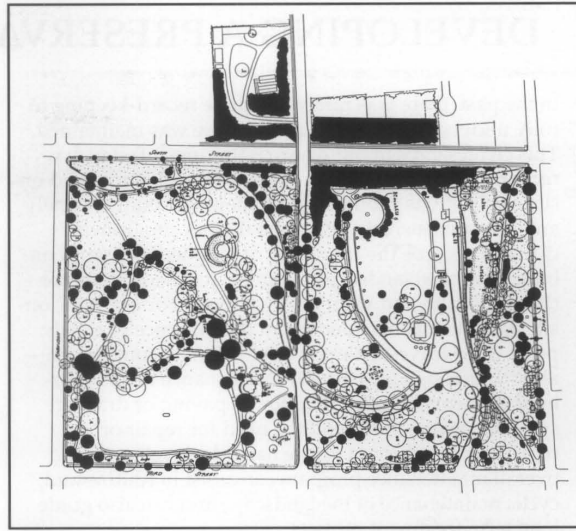
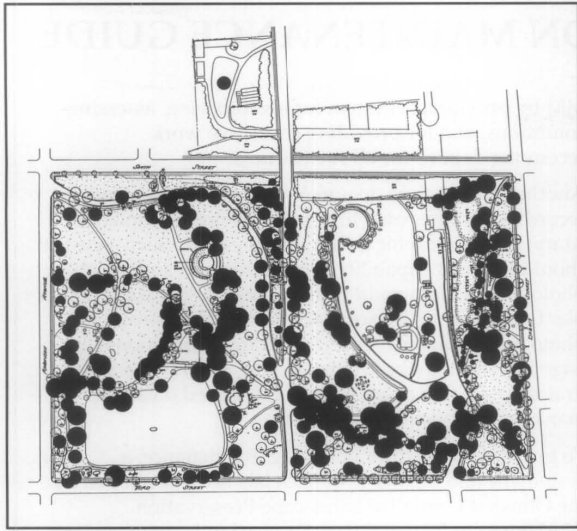
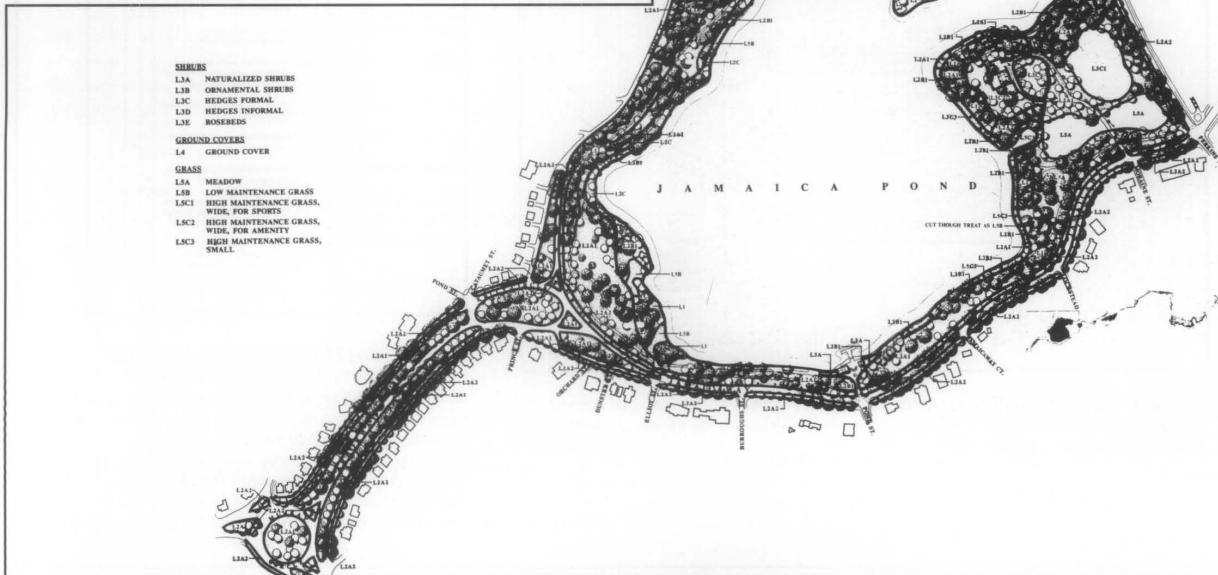


Figure 38 and 39 (above, left and right): The importance of landscape analysis and its ability to inform treatment and maintenance decisions is reflected in these two plans for Downing Park, Newburgh, New York. The plan, rendered in black, top left, illustrates all extant historic plants, while the plan, top right, depicts plantings which are non-historic or invasive for removal or relocation outside of the historic park. (courtesy LANDSCAPES)



Figure 40: A management decision was made to place a fence around a sentinel tree in Balboa Park, San Diego, California. The fence protects the specimen from root damage—impact from excessive pedestrian compaction or lawn mower damage. (courtesy author).

Figure 41 (below): A small property of under an acre may only have a few management zones including lawn, trees over lawn, shrub and herbaceous borders. Larger, more complex landscapes such as Jamaica Pond Park, Boston and Brookline, Massachusetts, contains a broader range of management zones including: forests, trees over grass—broad areas, trees over grass—narrow areas, meadows, and mown grass for active recreation amenities or passive use. (courtesy Walmsley/Pressley Joint Venture)



DEVELOPING A PRESERVATION MAINTENANCE GUIDE

In the past, there was rarely adequate record-keeping to fully understand the ways a landscape was maintained. This creates gaps in our research findings. Today, we recognize that planning for ongoing maintenance and on-site applications should be documented—both routinely and comprehensively. An annual work program or calendar records the frequency of maintenance work on built or natural landscape features. It can also monitor the age, health and vigor of vegetation. For example, on-site assessments may document the presence of weeds, pests, dead leaves, pale color, wilting, soil compaction—all of which signal particular maintenance needs. For built elements, the deterioration of paving or drainage systems may be noted and the need for repair or replacement indicated before hazards develop. An overall maintenance program can assist in routine and cyclic maintenance of the landscape and can also guide long term treatment projects.

To help structure a comprehensive maintenance operation that is responsive to staff, budget, and maintenance priorities, the National Park Service has developed two computer-driven programs for its own landscape resources. A Maintenance Management Program (MM) is designed to assist maintenance managers in their efforts to plan, organize, and direct the park maintenance system. An Inventory and Condition Assessment Program (ICAP) is designed to complement

MM by providing a system for inventorying, assessing conditions, and for providing corrective work recommendations for all site features.

Another approach to documenting maintenance and recording changes over time is to develop a manual or computerized graphic information system. Such a system should have the capability to include plans and photographs that would record a site's living collection of plant materials. (Also see discussion of the use of photography under Preparing Existing Conditions Plans, page 5.) This may be achieved using a computer-aided drafting program along with an integrated database management system.

To guide immediate and ongoing maintenance, a systematic and flexible approach has been developed by the Olmsted Center for Landscape Preservation. Working with National Park Service landscape managers and maintenance specialists, staff assemble information and make recommendations for the care of individual landscape features.

Each landscape feature is inspected in the field to document existing conditions and identify field work needed. Recommendations include maintenance procedures that are sensitive to the integrity of the landscape.

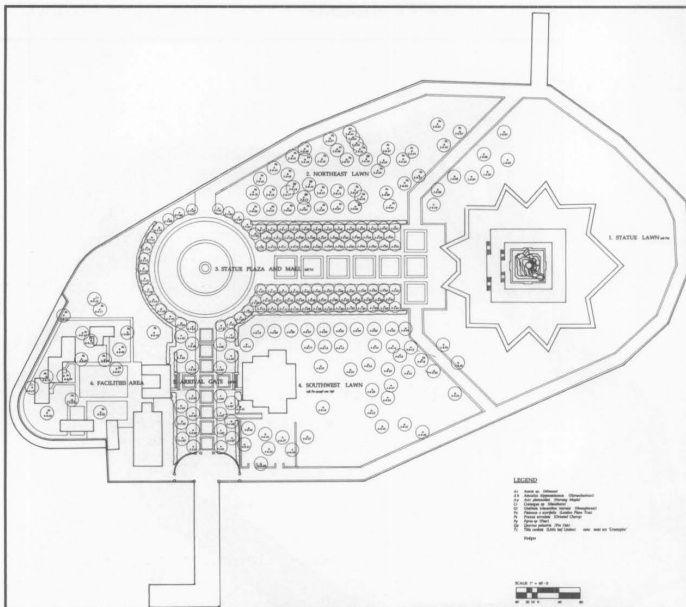


Figure A - Existing Conditions: A map of the existing trees at the Statue of Liberty National Monument is used to indicate necessary preservation maintenance work (Drawn by Margaret Coffin, 1992)

Statue of Liberty National Monument FIELD INVENTORY, INSPECTION, AND WORK NEEDED											
Category - Specimen Trees	Field ID#	DBH	Height	Age	Condition	Work Needed	Priority	Notes	Inspected	Reviewed	Approved
Area: 4 - South Lawn	Feature Name and Field ID#	DBH	Height	Age	Condition	Work Needed	Priority	Notes	Inspected	Reviewed	Approved
London Plane Tree 4-0-25	2.2	22	2	2	Large scar from branch split, structurally weak tree, remove branches with decay at base, plan for replacement	YES	X	P			
London Plane Tree 4-0-27	3.1	22	2	2	leaner, crowded by larger adjacent tree, remove dead branches	NO	*				
London Plane Tree 4-0-28	3.1	22	2	2	internal decay, remove large dead branches	YES	*				
London Plane Tree 4-0-29	2.1	22	2	2	fair condition, remove dead watersprouts from trunk and dead branches	NO	*				
London Plane Tree 4-0-30	1.2	22	2	2	good condition, remove watersprouts from trunk	NO	X				
London Plane Tree 4-0-31	2.3	22	2	2	fair condition, needs structural pruning at top of crown, remove three dead broken branches	NO	*				
London Plane Tree 4-0-32	1.3	22	2	2	good overall condition, remove one dead branch	NO	*				
London Plane Tree 4-0-33	3.2	22	2	2	leaner, remove two of five lower branches	NO	X				
London Plane Tree 4-0-34	1.2	22	2	2	remove watersprouts from trunk, re-cut dead branch spur	NO	X				
London Plane Tree 4-0-35	2.2	22	2	2	remove watersprouts from trunk, needs structural pruning throughout	NO	X				
London Plane Tree 4-0-36	3.3	22	2	2	in decline, dieback throughout, safety hazard, remove all deadwood, plan for replacement	YES	*	P			

Figure B - Field Inventory, Inspection, and work needed: Within areas of the landscape, each feature is assigned a field identification number. An inspection is conducted to assess the condition, potential problems, such as deadwood or integral decay, and specify work needed. A map (above) is used to locate features that require attention

Statue of Liberty National Monument FEATURE DATA - LONDON PLANE TREE	
CATEGORY:	Deciduous Tree
AREAS:	4- South Lawn
FEATURE NAME:	London Plane tree (<i>Platanus acerifolia</i>)
SOURCE OF IDENTIFICATION:	Al Fargie, STL Horticulturist, 1992
DESCRIPTIVE CHARACTERISTICS: The fruit of London Plane Tree is typically in clusters of 2, leaves are large, 5-10" wide whereas the fruit of American Sycamore is singular, and leaves are slightly smaller.	
HISTORIC SIGNIFICANCE/ APPEARANCE/ INTENT: London Plane trees were specified in the General Development Plan by Norman Newton in 1937 (Newton, N. T. Design on the Land, Harvard University Press, 1971, p. 343).	
PRESERVATION PRACTICES AND WORK PROCEDURES:	
Winter - Remove out dead, damaged wood and watersprouts as needed. Inspect for interior decay and pest damage. Disinfect tools between cuts to prevent spread of canker/sterilization disease.	
Spring - Trunk protection. Take preventative actions to protect the base of each tree from string trimmer damage. Train all equipment operators. Monitor and treat anthracnose. Prolonged periods of cool, moist, damp spring weather will increase anthracnose. The best times to control anthracnose are before bud break, at bud break, and when leaves have expanded. Transplant. Spring is the best time to transplant trees.	
Summer - Water. Newly transplanted trees so that they receive one inch of water every 10 days. To water, set up water bags around the base of the tree at the end of the day. Remove empty bags in the morning. Do not overwater. Fall Rake up London Plane tree leaves and dispose off site to remove anthracnose inoculum.	
PESTS, DISEASES AND CULTURAL PROBLEMS: Pests - Plum Borer, Lecanium Scale, Sycamore Lace Bug, Aphids, Fall Webworm Diseases - Anthracnose, Canker/sterilization, Wartywood, Powdery Mildew Cultural Problems - Susceptible to drought stress, frequently produces watersprouts, often vandalized by carving in bark.	
RECOMMENDED METHOD AND SOURCE OF REPLACEMENT: Replace in-kind with nursery stock. Consider anthracnose resistant cultivars that are similar in size and character to the straight species.	
PROPAGATION METHOD: Take root cuttings in July or August. Treat with IBA.	
ADDITIONAL SOURCES OF INFORMATION: Shigo, Alex L. A New Tree Biology. Durham NH: Shigo & Trees, Assoc., 1986. Sinclair, Lyon & Johnson. Diseases of Trees & Shrubs. Ithaca NY: Cornell U. Press, 1987.	

Figure C - Feature Data: For each feature that requires special care, a detailed sheet is developed. This contains notes on when to monitor and carry out work, specific procedures, cite potential problems, and perform repair or replacement.

Statue of Liberty National Monument CALENDAR - SPRING	
FOR ALL TREES - Transplant. Spring is the best time to transplant trees. If soil or leaf analysis indicates that fertilizer is needed, late fall is the best time to fertilize trees. However, fertilizer may also be applied in early Spring, before bud break. Use an organic fertilizer with the micronutrients needed, such as manganese. If the lawn area below the trees is receiving fertilizer, additional fertilizer is not necessary. Light annual pruning throughout the tree tends to reduce the amount of fertilizer needed.	
LONDON PLANE TREES - Trunk protection. Take preventative actions to protect the base of each tree from string trimmer damage. Train all equipment operators. Monitor and treat anthracnose. Prolonged periods of cool, moist, damp spring weather will increase anthracnose. The best times to control anthracnose are before bud break, at bud break, and when leaves have expanded.	
LINDENS - Prune out crossing branches on young trees.	
LAWN - Rake lawn areas in the early spring to remove matted grass and accumulated debris. De-thatch lawn areas where thatch accumulation exceeds 3/4 of an inch. Aerate with a core aerator. Lawn areas that are heavily compacted. However, do not aerate around the tree because of shallow roots. Begin mowing and trimming operations. Instruct all equipment operators on how to prevent damage to tree trunks. Check soil pH. Send soil samples to Cooperative Extension Service for analysis of pH, phosphorus and potassium levels. Apply lime and fertilizer as necessary to adjust the soil condition. Fertilize in late May or early June with an organic fertilizer with an analysis of 5-4-3 or equivalent. Apply at a rate of one pound of nitrogen per 1000 square feet. This is the first of three annual applications. Inspect lawn areas for pests (grubs) and disease (leaf spot, leaf smut) damage.	

Figure D - Calendar for Monitoring and for Work: All feature-specific monitoring and work recommendations are combined into one seasonal calendar for all areas of the landscape to ensure that important work activities are not overlooked.

Statue of Liberty National Monument RECORD KEEPING - FEATURE: LONDON PLANE TREE	
Record notes on measurement, conditions, work performed, reason for removal, replacement or installation, propagation method and growing location, status of feature, or reference to a related report, etc.	
All deadwood and watersprouts removed by Arboriculture class from University of Massachusetts	X AF 9/92
Replaced tree #4-0-26 with London Plane Tree, anthracnose-resistant cultivar 'Columbia' installed through Gardens Intake Project	X AF 4/93
#4-0-26 damaged by vandalism, re-set and restaked	X AF 5/93
Removed and replaced #4-0-37 with London Plane Tree, anthracnose resistant cultivar 'Liberty' in order to compare with 'Columbia'	X AF 5/93
#4-0-26 'Columbia' and #4-0-37 'Liberty' both in fairly good condition. Both received water by gator bag 1x a week during July and August	X AF 8/93

Figure E - Record Keeping: A record sheet is created for each type of feature. Maintenance staff may record information relating to changes in condition, major work performed, removal, replacement, propagation and any other events. As records are added too through the years, they become a valuable source of documentation of the landscape's history.

Because landscapes change through the seasons, specifications for ongoing preservation maintenance should be organized in a calendar format. During each season or month, the calendar can be referenced to determine when, where, and how preservation maintenance is needed. For example, for some trees structural pruning is best done in the late winter while other trees are best pruned in the late summer. Serious pests are monitored at specific times of the year, in certain stages of their life cycle. This detailed calendar will in turn identify staff needs and work priorities.

Depending on the level of sophistication desired, one approach to documenting maintenance data and recording change over time is to use a computerized geographical or visual information system.¹³ Such a system would have the capability to include plans and photographs that would focus on a site's landscape features.

If a computer is not available, a manual or notebook can be developed to organize and store important information. This approach allows managers to start at any level of detail and to begin to collect and organize information about landscape features (see Box opposite and above). The value of these maintenance records cannot be overstated. These records will be used in the future by historians to understand how the landscape has evolved with the ongoing care of the maintenance staff.

Recording Treatment Work and Future Research Recommendations

The last and ongoing step in the preservation planning process records the treatment work as carried out. It may include a series of as-built drawings, supporting photographic materials, specifications and a summary assessment. New technologies that have been successfully used should be

highlighted. Ideally, this information should be shared with interested national organizations for further dissemination and evaluation.

The need for further research or additional activities should also be documented. This may include site-specific or contextual historical research, archeological investigations, pollen analysis, search for rare or unusual plant materials, or, material testing for future applications.

Finally, in consultation with a conservator or archivist—to maximize the benefit of project work and to minimize the potential of data loss—all primary documents should be organized and preserved as archival materials. This may include field notes, maps, drawings, photographs, material samples, oral histories and other relative information.

Summary

The planning, treatment, and maintenance of cultural landscapes requires a multi-disciplinary approach. In landscapes, such as parks and playgrounds, battlefields, cemeteries, village greens, and agricultural land preserves—more than any other type of historic resource—communities rightly presume a sense of stewardship. It is often this grass roots commitment that has been a catalyst for current research and planning initiatives. Individual residential properties often do not require the same level of public outreach, yet a systematic planning process will assist in making educated treatment, management and maintenance decisions.

Wise stewardship protects the character, and or spirit of a place by recognizing history as change over time. Often, this also involves our own respectful changes through treatment. The potential benefits from the preservation of cultural landscapes are enormous. Landscapes provide

scenic, economic, ecological, social, recreational and educational opportunities that help us understand ourselves as individuals, communities and as a nation. Their ongoing preservation can yield an improved quality of life for all, and, above all, a sense of place or identity for future generations.

Selected Reading

Birnbaum, Charles A, guest editor. *Preservation Forum*. "Focus on Landscape Preservation". Washington, D.C.: National Trust for Historic Preservation, Volume 7, No. 3, May/June 1992.

Buggey Susan, guest editor. *APT Bulletin. Special Issue: Conserving Historic Landscapes*. Fredericksburg, VA: Association for Preservation Technology International, Volume XXIV, No. 3-4, 1992.

Burns, John A, and the Staff of HABS/HAER. *Recording Historic Structures*. American Institute of Architects Press, 1989. (Includes chapter on the documentation of Meridian Hill Park, pp. 206-219.)

Diehl, Janet and Thomas S. Barrett, et al. *The Conservation Easement Handbook. Managing Land Conservation and Historic Preservation Easement Programs*, The Land Trust Exchange (now Alliance) and the Trust for Public Land, 1988.

International Committee of Historic Gardens and Sites, ICOMOS-IFLA. *Jardins et Sites Historiques*, Scientific Journal. ICOMOS 1993. Compilation of papers on the subject, in both english and french.

Kelso, William M., and Rachel Most. *Earth Patterns: Essays in Landscape Archaeology*. Charlottesville, VA: University Press of Virginia, 1990.

Stokes, Samuel, N., et al. *Saving America's Countryside: A Guide to Rural Conservation*. Baltimore and London: John Hopkins University Press, 1989.

Tishler, William, editor. *American Landscape Architecture, Designers and Places*. Washington, DC: The Preservation Press, 1989.

Several publications available from the National Park Service deal directly with the preservation of historic landscapes. These include:

America's Landscape Legacy, Brochure, Preservation Assistance Division, 1992.

Guidelines for the Treatment of Historic Landscapes, Preservation Assistance Division, 1992 (Draft).

Case Studies in Landscape Preservation, Preservation Assistance Division in cooperation with the Alliance for Landscape Preservation, 1995.

Cultural Landscapes Bibliography: An Annotated Bibliography of Resources in the National Park System, Park Historic Architecture Division, 1992.

Historic Landscape Directory; A Source Book of Agencies, Organizations, and Institutions Providing Information on Historic Landscape Preservation, Preservation Assistance Division, 1991.

CRM, Cultural Resource Management, Thematic Issues: *The Preservation of Cultural Landscapes*, Volume 14, No.6,

1991; *A Reality Check for Our Nation's Parks*, Volume 16, No. 4, 1993; *Historic Transportation Corridors*, Volume 16, No. 11, 1993; and, *The Interpretation of Cultural Landscapes*, Volume 17, No. 8, 1994.

Pioneers of American Landscape Design: An Annotated Bibliography, Preservation Assistance Division, 1993 (ISBN:0-16-041974-3).

Making Educated Decisions: A Landscape Preservation Bibliography, Preservation Assistance Division, 1994 (ISBN:0-16-045145-0)

National Register Bulletin 18: How to Evaluate and Nominate Designed Historic Landscapes; National Register Bulletin 30: Guidelines for Evaluating and Documenting Rural Historic Landscapes; National Register Bulletin 40: Guidelines for Evaluating and Registering Battlefields; and, National Register Bulletin 41: Guidelines for Evaluating and Registering Cemeteries, Interagency Resources Division.

Endnotes

¹ The cultural landscape definitions are contained in *NPS-28, Cultural Resource Management Guideline*, Release No. 4, 1994, National Park Service.

² For an expanded list of offices to contact, see *America's Landscape Legacy* brochure. Free from the National Park Service Preservation Assistance Division.

³ From Kelso, William, *A Report on the Archeological Excavation at Monticello, Charlottesville, VA, 1979-1981*, Thomas Jefferson Memorial Foundation, 1982.

⁴ Lewis, Pierce, "Common Landscapes as Historic Documents," Lubar, Steven and Kingery, W. David (eds.), *Essays on Material Culture*, Smithsonian Institution Press, Washington, DC, 1993, p. 138.

⁵ Meinig, D. W. "The Beholding Eye: Ten Versions of the Same Scene," *The Interpretation of Ordinary Landscapes*, Oxford University Press, New York, 1979, pp. 33-48.

⁶ See National Park Service *National Register Bulletins* under Selected Reading (opposite).

⁷ The Historic American Buildings Survey, HABS, has generated standards for landscape documentation that they now utilize on a number of projects. Specifically, a case study on recording historic landscapes is included in *Recording Historic Structures*, pp. 206-219. See Selected Reading (opposite).

⁸ This is being undertaken with technical assistance from the Olmsted Center for Landscape Preservation a partnership between the National Park Service and the Arnold Arboretum of Harvard University that provides cultural landscape technical assistance, technology development and training.

⁹ See *National Register Bulletin 16A: How to Complete the National Register Registration Form*. Washington, D.C.: U.S. Department of the Interior, National Park Service, Interagency Resources Division, 1991.

¹⁰ Ibid.

¹¹ The standards are general principles for the treatment of buildings, structures, sites, objects, districts and landscapes. The treatment standards are one set of standards included in the broader group known as the *Secretary of the Interior's Standards for Archaeology and Historic Preservation*.

¹² The Secretary of the Interior is responsible for establishing professional standards and providing advice on the preservation and protection of all cultural resources listed on or eligible for the National Register of Historic Places. For a copy of the brochure, *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, 1992 contact the National Park Service Preservation Assistance Division (424) Box 37127 Washington, DC 20013-7127.

¹³ A visual information system, a computer-aided mapping program with a linked database, has been developed for the historic landscape at the Frederick Olmsted National Historic Site. Data can be accessed directly from a digitized map such as information on each plant including identification, age, location, size, condition, and maintenance history.

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