The terms "City Beautiful," Model Town," and "Ideal City" would not have been descriptions applied to most mining towns in the 19th century. Typically they were crowded, unattractive, and often contagion-ridden places. However, after the turn of the century, reform movements associated with the Progressive Era brought better working and living conditions to mining communities. The welfare programs established by mining companies often included initiatives to house workers and their families in more pleasant and healthful environments. These reform programs coincided with the emergence of landscape architecture and city planning as professions in America, leading some companies to hire well-known designers to improve residential and work environments. One important landscape designer who shaped both the physical form and social character of mining communities was Warren Henry Manning.

Manning's 1906 plan for the mining town of Warren, Arizona, represents but one entry among the more than 1,700 projects that compose the designer's client list, an account book compiled over a 42-year period beginning in 1895 when Manning began his Boston-based practice. Aside from absolute numbers, the listing is also impressive for the broad range of work represented, diverse in both scope and geographical location.

Manning himself grouped his projects into fourteen categories by type (small home grounds, universities, subdivisions and expositions grounds, for example), and by state—more than forty, with the majority in Massachusetts, Ohio, Michigan, Pennsylvania, and New York. The work included estates for the Rockefellers, McCormicks and Seiberlings; parks and park systems in Cincinnati, Milwaukee and Louisville; and town plans for Harrisburg, Pennsylvania, Birmingham, Alabama, and Athens, Georgia.

In addition to design work, Manning published...
hundreds of articles in professional and popular publications such as Landscape Architecture Quarterly and The Craftsman, as well as supplying pieces for local newspapers. He was an active member of many professional groups and organizations, and was a key figure in the founding of the original American Park and Outdoor Association in 1893, and in 1899, the American Society of Landscape Architects, serving as the Society’s president in 1914.

Born in 1860 in the small village of Reading, Massachusetts, Manning began work at an early age for his father, a noted horticulturist, in the family’s plant nursery business. Here he developed an expertise in horticulture and plant design, particularly the use of native species, that would figure importantly throughout his later career.

Wanting to expand the scope of his work, Manning left the family business and joined the firm of Frederick Law Olmsted in 1888. Over the next eight years with the Olmsted firm, Manning had a role in 125 major projects in more than twenty-two states, chiefly as the firm’s planting supervisor. During this period with the Olmsted firm, Manning worked on designs for Hopedale, Massachusetts, a model company town near Boston. His early experiences in Hopedale, no doubt, fostered an interest in the planning and design of industrial communities. This work would constitute an important part of his later practice, represented by such projects as Goodyear Heights, a residential addition to Akron, Ohio, developed by the Goodyear Company in 1912, and projects for the Calumet and Hecla Mining Company in Upper Michigan from 1915 to 1932.

Manning left the Olmsted firm to set up his own office in 1896, deciding to “devote himself to town, city, regional, state and national planning . . . and the wish to be independent.” Within ten years of setting up his practice, the landscape designer was presented with his first opportunity to plan and design a complete town from the ground up. In 1906 Manning received, in fact, two commissions for model town projects, both from clients involved in the mining industry. For the Cleveland Cliffs Iron Company, Manning was hired to develop the town of Gwinn in Michigan’s Upper Peninsula; and in a very different locale—the Arizona desert—the Calumet & Arizona Copper Mining Company employed Manning to produce designs for the town of Warren.

In Arizona, large-scale, commercial copper mining began in the 1880s in the far southeastern corner of the state, near the town of Bisbee in the Mule Mountains. Termed the “Warren District” (to memorialize the prospector, George Warren, who found ore in the area), mines in this region contributed to the ascendancy of the nation’s western states in copper production, displacing Michigan as the industry’s leader. As mining in Michigan began its decline, copper interests there looked to Arizona for new opportunities. One group of miners and specu-
lators from Calumet, Michigan, together with investors with business ties to Minnesota’s iron industry, began buying Arizona mining claims in the late 1890s. This group incorporated the Calumet & Arizona Mining Company (C&A) in 1901, an enterprise that would become the second largest copper producer in the Warren District.

From the start, C&A grew rapidly. In 1905 the company employed as many as 1,000 men in their Warren District mines; at this time company officials found it necessary to begin addressing concerns about housing for employees. Because other mining companies operating in the district prior to C&A had adopted a policy of prohibiting residential uses on corporate land, the town of Bisbee, situated in a narrow canyon, had become extremely overcrowded. Sanitary conditions in the town were described as “almost intolerable,” and attendant health problems were common. In response to this situation, C&A officials—familiar with company-sponsored towns on the iron and copper ranges in Minnesota and Michigan—determined that they would need to provide improved housing opportunities to attract and maintain a stable workforce.

From legal records and available archival material, it is difficult to trace the exact chain of events that led to the establishment of the town called “Warren” after the district’s namesake. It appears, however, that around 1905, a pair of mineral land developers, Hoval A. Smith (former C&A chief mining engineer) and Henry B. Hovland (a major C&A stockholder), probably acting in association with C&A directors, began work on the townsite project. One source close to the project credits Smith and Hovland with conceiving the idea for a town intended to: “give the residents of Bisbee, miner and mine-owner alike, a chance to live in decent surroundings—more: to give them a city where the excellence of the sanitary conditions and utilitarian requirements would be equaled by the artistic arrangement of vistas, streets, and public buildings.”

To direct this ambitious undertaking, Smith and Hovland brought in Cleveland Van Dyke as project manager. Van Dyke had studied engineering in his native Minnesota before moving to Arizona around the turn of the century; he later developed the town of Miami, Arizona, and became an important figure in state politics. Van Dyke, in turn, was responsible for involving Warren Manning in planning the new town. Manning came to Bisbee for a first visit in February of 1906 and sent a description of the settlement in a letter to his wife, Nettie, written from the Copper Queen Hotel:

Got into communication with Mr. Van­dyke [sic]. Then saw the town—and such a town you never saw in your life. It’s all on edge, except where the edges meet at the bottom, and there is just about enough room for a stream to flow, when there is water to flow in it…houses are stuck into the hill sides, …arranged every possible angle …as though they had been tumbled down the hill sides then patched up, and made into a town where they happened to land… I must start to go off to the site.

The new townsite, as Manning discovered, was located several miles southeast of both Bisbee and the C&A mines. Described by Cleve Van Dyke as “the most favorable portion of the surface of the company’s mining properties” the site occupied a wide, fan-shaped basin enclosed by symmetrical hills with a view of distant Mexican mountain peaks visible through an opening in the hills, called the Black Gap. Manning was captivated by the beauty of the Arizona landscape: “Arizona is one of the most fascinating regions I have been in, by reason of its greatly varied lay of the land, an attractive unity in its grayish-green landscape color schemes, brilliant atmospheric colors, and the miracles of up-springing flower carpets after rain.”

Manning made at least one additional trip to Warren in 1906, and evidently continued work on the project from his Boston office for about a year. It appears that most of his time was devoted to a general design program for the community, along with more specific plans for the layout of streets, lots and public spaces in association with a consulting engineer and architect. Also at this time, C&A officials moved forward in structuring the business end of the development project. In 1906, they incorporated the Warren Company as a subsidiary to provide “a desirable location where the employees…” could secure
sites for homes at reasonable prices, and where they would be provided with sanitary conditions, a good water supply and transportation facilities for getting to and from their work and to the business centers of the [mining] camp."

Manning’s designs for the town of Warren were based upon a structural skeleton of three wide avenues. The main avenue, the town’s central axis called “The Vista” centered on a peak in the distant mountain range. The vista was arranged as a mall with public park space as a median between two streets. On one end of the mall, space was reserved for an important public building, and on the other, Manning designed a 500 foot-wide plaza. Minor streets formed a grid within the center of the plan while on the north, the major streets were joined by a semicircular boulevard. On the east, another boulevard, called Black Knob View extended in a line from the plaza, then changed direction to curve through the hils on the west side of the basin.

Key to the development of the plan, and of the town itself, were rail lines, both the Arizona and Southeastern Railroad (A&S), and more importantly, an interurban system. As shown on the plan, both lines entered the townsite from the northwest, but the proposed streetcar route took a jog at the plaza to head northeast, while the A&S rail line, already in place, continued its path to the south. In selecting the site for the new town, company officials realized that a streetcar was needed “for the rapid transportation of the miners to and from their homes.” Thus C&A constructed an electric railway between Bisbee and Warren and opened it for public use in 1908.

From the start of the project, C&A officials intended the new community to be comprehensively planned. So to carry out their concept, they asked Manning to recruit an architect to plan buildings for the project. According to Manning, the developers wanted to hire “the best man to aid me in working out Spanish and pueblo architectural conceptions with much detail based on such plant forms as the tree and globe cactus, century plant and Spanish dagger. After an extended search, I found Mr. Elliott.”

Then an instructor of architecture at the University of Pennsylvania, Hour Elliott was hired by the townsite developers in 1906 “to consult on matters of architecture.” Elliott had received a degree from the Columbia University School of Architecture in 1900, followed by two years of residency at the Ecole des Beaux Arts in Paris where he studied painting. He taught architecture for a few years at Penn and Harvard, and then moved on to a distinguished career as an art educator and museum administrator. For almost twenty years he directed the education department at the Metropolitan Museum of Art in New York City.

What we know about Elliott’s designs for Warren comes not from looking at what remains today, but rather from illustrations for an article he wrote for the September 1908 issue of the *Architectural Review*. He entitled the piece “An ideal City in the West.” The illustrations that follow appear in that article, and show what the town would have looked like had Manning’s and Elliott’s plans been fully executed.

Manning’s earlier work for the World’s Columbian Exposition, while with the Olmsted firm, and Elliott’s Beaux-Arts training are quite strikingly reflected in their designs for Warren—particularly in their proposals for a system of integrated parks, boulevards and monumental formal public spaces; and in their use of an architectural scheme consistently carried out in a grand scale, as seen in Elliott’s drawings. (These drawings follow this essay.)

In marked contrast are several contemporary views of what was actually constructed on the site after ground was broken for the project in 1907. (See following photography.) Obviously Elliott’s plans for buildings based on southwestern themes were scrapped and the bungalow style for houses was adopted. In his article, Elliott states that this shift was caused by “a complete change of management, resulting from the financial stringency of the past year.” Copper prices had fallen in 1907 and it appears that the town’s original visionaries—Hovel Smith, Henry Hovland and Cleve Van Dyke—all had moved on to other ventures by the end of 1908.

The architect Elliott was not happy about the abandonment of his ideas. He concluded his article in the *Architectural Review* by stating that in Warren “... the West lost a chance to point the country toward the City Beautiful.” Manning also refers to the project rather cursorily in his unpublished autobiography written the 1930s: “the promoters could not complete their conception, but I am told that many
of the streets are in place."

The Bisbee Daily Review, however, cast the beginnings of the new town in a very different light in 1908:

The architectural beauty of the cottages that have been built is a particular feature of Warren...special effort had been made along this line and the California bungalow has been drawn up largely for the architecture of the town. Special features which delight are the large overhanging roofs, the heavy pillars, and the beautiful shades, with which the houses have been painted.

Warren was also deemed a success by the local populace. More than 170 buildings were put up within three years of its opening in 1907. Ironically—at least from the architect Elliott’s point of view—from the start of the project, Warren Company officials adopted the epithet “City Beautiful” and used the term extensively in their promotional efforts.

In terms of residential development, Warren grew incrementally, reflecting the cyclical nature of the mining industry. The development company platted the town in stages, generally following Manning’s original plan. For the most part, lots were sold outright, but in the beginning, C&A constructed homes for sale to employees, and during other periods the company offered special loan programs as incentives. Warren reached a build-out of more than 530 buildings at its peak development in 1930, becoming Bisbee’s largest residential suburb. Little building activity has occurred since 1930s and there have been efforts, though not yet realized, to designate the town as a Historic District listed on the National Register of Historic Places.

In summary, Warren did not develop as it was originally conceived, particularly in terms of scale and architectural design. However, the model town has yet retained important elements of Warren Manning’s original designs. It still stands apart from most mining towns with its broad streets, curving boulevards, larger lots, public parks, distinctive tree plantings—and despite Huger Elliott’s protestations—picturesque bungalows.

Acknowledgements

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Selected Sources

Calumet & Hecla Collections, Michigan Technological University Archives and Copper Country Collections, Michigan Technological University, Houghton, Michigan.


Fig. 2. After visiting the Warren site in 1906, Manning devised this plan for the arrangement of roads, parks, a plaza, and zones for residential and commercial development. "General Plan of the City of Warren, Arizona," from a drawing by Huger Elliott in "An Ideal City in the West," The Architectural Review (September 1908), 137.

Fig. 3. A conceptual view of Warren built up. The view is to the north, with the broad central avenue, termed The Vista, prominent in the mid-section of the drawing. Manning and Elliott planned a plaza for the avenue's southern end and reserved space for a prominent public building at its northern terminus. From a drawing by Huger Elliott in "An Ideal City in the West," The Architectural Review (September 1908), 136.
Fig. 4. As conceived by Manning and Elliott, the plaza at the southern end of The Vista extended to a width of 500 feet. A railroad station and post office, both with towers, were to be built in the semicircular ends of the plaza. Other buildings enclosing the space conformed to a standard cornice height to create "an imposing aspect." "The Plaza and Vista Beyond," from a drawing by Huger Elliott in "An Ideal City in the West," *The Architectural Review* (September 1908), 139.

Fig. 5. Studies for key large-scale buildings—including a chapel and the Warren Investment Building—were completed by Elliott. Here, his concept for the railroad station located at the eastern end of the plaza. "Study for the Railroad Station," from a drawing by Huger Elliott in "An Ideal City in the West," *The Architectural Review* (September 1908), 138.
Fig. 6. Elliott designed the large aqueduct, seen on the right, to replace an existing flume that transported water from the mines to serve agricultural lands. The aqueduct also carried a roadway that connected two hills, and functioned as a "city gate." "The Aqueduct and Town, from the Western Hill of the Gap," from a drawing by Huger Elliott in "An Ideal City in the West," The Architectural Review (September 1908), 138.

Fig. 7. While Manning planned the placement of the townsite's residential districts, Elliott provided a portfolio of model home types for "miner and mine-owner alike." This design, sited in the foothills extending up from the valley, was likely intended as the residence of a company manager. "A Villa on the Hill," from a drawing by Huger Elliott in "An Ideal City in the West," The Architectural Review (September 1908), 138.
Fig. 8. The architectural program for Warren called for a uniformity in building form and detail. This sketch for a modest cottage exhibits design features similar to those of more extravagant dwellings. Common exterior materials and color, window shape, and roof profiles were intended to create a harmonious appearance that would complement the beauty of the natural environment. "Workman's Cottage," from a drawing by Huger Elliott in "An Ideal City in the West," The Architectural Review (September 1908), 141.

Fig. 9. Contemporary view of bungalow row. Huger Elliott was chagrined that the first house to be built in the townsite did not follow his designs—particularly his color palette based on the browns, reds and tans of the natural landscape. He felt that "the West lost a chance to point the country toward The City Beautiful" when Warren's first house was completed "blue, with a green roof." Photograph by Arnold Alanen.
Fig. 10. Recent view of Warren showing the tailings pile that has arisen to the north of the settlement. Photograph by the author.

Fig. 10A. Recent view of home of Walter Douglas, mine manager, at Warren with tailings pile at rear. Photograph by Robert L. Spude.
Fig. 11. Warren has retained many of the distinctive bungalows that initially attracted prospecting residents to the area. Photograph by the author.

Fig. 12. Contemporary view of Warren looking south, taken from atop the copper leach dump at the town’s northern perimeter. This view shows the clearly visible imprint that the Manning plan has left upon the landscape. Photograph by Cathy Murphy published in “The Observer.” From the vertical files of the Bisbee Mining and Historical Museum.