

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY
RECEIVED **AUG 29 1977**
DATE ENTERED **OCT 3 1978**

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

FOR FEDERAL PROPERTIES

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC United Brick Corporation Brick Complex

AND/OR COMMON New York Avenue Brick Kilns

2 LOCATION

STREET & NUMBER 2801 New York Avenue, N.E. 000

--NOT FOR PUBLICATION

CITY, TOWN Washington, D.C. CONGRESSIONAL DISTRICT Bladensburg and New York Avenue

STATE DC CODE 00 COUNTY 00 CODE 00

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE
<input type="checkbox"/> DISTRICT	<input checked="" type="checkbox"/> PUBLIC	<input type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE <input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input checked="" type="checkbox"/> UNOCCUPIED	<input type="checkbox"/> COMMERCIAL <input type="checkbox"/> PARK
<input checked="" type="checkbox"/> STRUCTURE S	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input type="checkbox"/> EDUCATIONAL <input type="checkbox"/> PRIVATE RESIDENCE
<input type="checkbox"/> SITE	PUBLIC ACQUISITION	ACCESSIBLE	<input type="checkbox"/> ENTERTAINMENT <input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input checked="" type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT <input type="checkbox"/> SCIENTIFIC
	<input type="checkbox"/> BEING CONSIDERED	<input type="checkbox"/> YES: UNRESTRICTED	<input checked="" type="checkbox"/> INDUSTRIAL <input type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER:

4 AGENCY

REGIONAL HEADQUARTERS: *(If applicable)* United States of America and its Assigns
c/o Agricultural Research Service

STREET & NUMBER United States Department of Agriculture
Office of the Secretary

CITY, TOWN Washington, D.C. 20250 STATE DC

-- VICINITY OF

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC. National Archives and Records Service

STREET & NUMBER Pennsylvania Avenue at 8th Street, N.W.

CITY, TOWN Washington, D.C. STATE DC

6 REPRESENTATION IN EXISTING SURVEYS

TITLE None

DATE _____

--FEDERAL --STATE --COUNTY --LOCAL

DEPOSITORY FOR SURVEY RECORDS _____

CITY, TOWN _____ STATE _____

7 DESCRIPTION

CONDITION		CHECK ONE		CHECK ONE	
<input type="checkbox"/> EXCELLENT	<input checked="" type="checkbox"/> DETERIORATED	<input type="checkbox"/> UNALTERED	<input checked="" type="checkbox"/> ORIGINAL SITE	<input type="checkbox"/> MOVED	DATE _____
<input type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input checked="" type="checkbox"/> ALTERED			
<input checked="" type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED				

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The kiln complex under nomination to the National Register is located within the 2800 block of New York Avenue, N.E. This block -- bounded by New York Avenue to the north, commercial development to the west, and the National Arboretum to the south and east -- now contains the kiln structures and vacant buildings formerly utilized by the United Clay Products Corporation in brick manufacture.

The twelve kilns and their adjoining stacks comprise the most significant and central portion of the brickworks (1.03 acres). Various industrial and administrative structures, also used in the brickmaking operation are standing vacant.

The twelve beehive kilns which currently exist on the site present a well-integrated and visually-unique setting, one reminiscent of a form of manufacture now quite rare. Almost Byzantine in flavor, the earthen-toned kilns and their tall stacks achieve a cohesive strength through their similarity of construction and design. The only interruptions within the kiln complex have occurred as a result of the deterioration and demolition of three structures (see site plan). The demolition was brought about the widening of New York Aveune which borders dangerously close to many of the industrial structures.

*ATTACHED TO 9/15/76
L. ...
... TO ...
...*

Constructed of red common brick and stabilized by peripheral steel bands, each circular kiln is crowned with an arched brick roof. On most kilns, the original roof covering of tar has disappeared and many weed trees have grown and infiltrated their roots into the brickword. Beneath this covering, however, the soft-toned brick of the roof is still evident, providing a warm contrast to the deeper red hues of the walls.

As stated, all twelve kilns exhibit the same basic method of construction. The circular walls are made of common, extruded brick, lined on the interior with a heat-resistant firebrick. The walls of ten of the kilns are accented along the periphery by twelve arched fireboxes. These have all been infilled, signifying a change in fuel type from coal to oil. Thw two kilns expressly designed for oil heat (post 1939) do not exhibit these arches.

8 SIGNIFICANCE

PERIOD		AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION		
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE		
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE		
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN		
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER		
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION		
<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input checked="" type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)		
		<input type="checkbox"/> INVENTION				

SPECIFIC DATES

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

At the turn of the century, there were approximately one hundred brickyards operating within the District of Columbia.¹ The majority of these concerns were small, family-run ventures operating out of backyards. A sizeable number, however, were larger concerns, many of which excavated clay from the Anacostia Deposit located along that river. Commissions received by most of the city's largest buildings, let alone its rowhouses and miles of sidewalk.²

As the Capital city expanded and developed, many of these yards were closed. Exhausted clay deposits, real estate speculation, and the hard economics of efficient production forced many plants to move or shut down.

It was during this period (1900-1930) that the New York Avenue brickworks came into prominent operation. For many years, rectangular kilns had been fired on the site. Between 1927 and 1931 (exact dating efforts have proved futile), the business was expanded by the construction of nine large, down-drafted beehive kilns. These kilns still stand on the site, accompanied by three others of more recent vintage.

With the increased acceptance and use of ferro-concrete in construction, and wide-scale consolidation effort within the brick industry, the number of brickyards in the Capital area just prior to the war reduced to a handful.³ The now-defunct West Brothers Brick Company, which operated beehive kilns on the present site of the Pentagon, and the Washington Brick Company which still runs a tunnel kiln on Muirkirk Road, provided the major sources of competition of the United Brick Corp. facilities on New York Avenue.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

See continuation sheets

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY approx. 8-10 acres

UTM REFERENCES

A	1 8	3 2 9	3 5 0	4 3 0 9	1 0 0	B					
	ZONE	EASTING	NORTHING				ZONE	EASTING	NORTHING		
C						D					

VERBAL BOUNDARY DESCRIPTION

The area located within the 2800 block of New York Avenue includes a group of twelve beehive kilns and their eight stacks and a complex consisting of a factory, drying shed and miscellaneous structures of a non-descript nature.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
none			
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Dorothy L. Jacobson

John L. Creech, Director

ORGANIZATION

DATE

for Agriculture Research Service

National Arboretum 3/22/76

STREET & NUMBER

TELEPHONE

129 C Street, SE. 202-543-3584

USDA-ARS (202) 399-5400

CITY OR TOWN

STATE

Washington, D.C. 20003

Washington, D.C. 20002

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES

NO

NONE

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is National State Local.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

Acting Director, Recreation Management

DATE

9-7-78

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DIRECTOR, OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION

KEEPER OF THE NATIONAL REGISTER

ATTEST: William Lebovich

DATE

10/3/78

DATE

Sept 28, 1978

KEEPER OF THE NATIONAL REGISTER

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The conditions of the kiln interiors vary tremendously. The attached chart shows this in comparative form. Several interiors have fireboxes that are deteriorating or are totally absent. In others, their condition is fairly good. Because the fireboxes served to keep the flames away from the stacked bricks, they were subject to great ranges in temperature and were therefore vulnerable to deterioration.

As mentioned, the kilns were lined with firebrick. Dependent upon the age of the kilns these walls vary in thickness; newer kilns deteriorated significantly causing the firebrick to pull dangerously away from the walls.

This condition constitutes a structurally hazardous safety condition. In other kilns, however, the walls are in fair condition. The interior of each crown generally reflects the same condition in its walls; the ceilings, however, have never been subject to direct flame, so there is usually some improvement.

The flooring within the kilns is interesting both visually and functionally. Also of firebrick, the floors were laid in diagonal patterns over a series of flues. These flues drew heat down through the set bricks and out a main flue to a nearby stack. The firebricks are generally rectangular in form, with a portion of one side cut away to permit the passage of heat through the floor. In approximately half the kilns, these floors are in fair condition and provide an unusual surface play of solids and voids.

There was a traditional maintenance problem encountered in brick-making due to the stress placed on the walls by the extreme temperature reached in firing. This maintenance was conducted using similar brick materials, laid in identical strecher/header courses, which has insured integrity of design and workmanship.

Included within the kiln complex are eight exhaust stacks, all of which are very simple brick structures. Six of the eight are rectangular, strengthened by steel corner braces and spanning rods. The remaining two are round, modern stacks stepped at the base and strengthened by circular steel bands. All the stacks appear to be between 40' and 50' tall. This height was required in providing the suction necessary for down-draft kilns.

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The two modern stacks are the only ones in good condition. All the others, the older rectangular variety, have suffered substantial cracking. Much repainting and patching has been done to stabilize the stacks but this has had only minimal effect. Most have taken to leaning precariously and are a safety hazard.

Despite the functional tie which existed between the kiln complex and the surrounding industrial buildings, the kilns or selected ones possess enough significance by themselves to stand alone. The complex is the only complete functional unit, still existing within the brickyard, which conveys a feeling for the type of manufacture once conducted. The nearby factory and drying shed have been altered so much that their significance is minor: the factory stands empty, devoid of all the brickmaking machinery which gave it a purpose; the dryers have sustained such alterations that their original appearance is uncertain and their purpose obliterated.

Were these nearby structures to be removed, the cultural history values of the kilns would still be strong, and the aesthetic qualities of the kilns markedly enhanced.

The factory building is the largest structure on the site and occupies approximately 21,000 square feet. At one time the factory, which is constructed almost entirely of brick with a sheet metal roof and earthen floor, housed all of the machinery necessary to process raw clay into brick forms.

Attached to the end of the factory is the drying shed. This is a low brick and rough frame structure containing 38 drying tunnels 100 feet in length and a network of rails for carts which transferred bricks. Several small office and storage rooms are attached to the drying sheds. These are a miscellany of non-descript structures added as needed.

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Small changes in the manufacturing process, such as a conversion to fuel oil (1939) and a shift to forklift equipment (in the 1950's), enabled production at the United Brick Corp. to increase substantially. Levels of 140,00 extruded brick⁴ and 7,500 soft-mud brick⁵ were reached daily. Just as before, most of the brick produced went into local construction projects. The Broadmoor Apartments on Connecticut Avenue and Fairlington Villages, just across the River, are two typical examples. In addition, the brick used in Colonial Village, the first F.H.A. housing project (1935, Arlington, Va), was supplied by United Brick Corporation. More recent commissions have produced brick for the Court or Claims and New Executive Office Buildings on Lafayette Square, and the National Cathedral (brown, sand-finished brick).

Since the closure of the New York Avenue brickyard in 1972, only one plant has remained in operation in Washington. It is important to note that this brick company employs tunnel kilns, a variety considerably more common than beehives. The "typicality" once expressed so well by the New York Avenue works may now be considered unique.

The function of the kiln complex is as important as its physical construction.

The firing of the kilns was the last step in the brickmaking operation. Having been processed in the dryers to an adobe-like hardness, the bricks were conveyed on transfer cars to the kilns. Prior to the purchase of forklift equipment in the 1950's these bricks were manually taken off the cars and hand-stacked in the kilns by a team of brick-setters. Care was taken in stacking the bricks to allow air channels for an even firing. The kilns were then closed off by filling the doorways with "salmon" or unbaked brick.

Although a normal firing only lasted four to five days, the setting and cooling periods extended the process to a week and one half. When coal was in use, a fire-gang of twelve men (per kiln stood round-the-clock watches shovelling coal and regulating the fire. After the conversion to oil, that team was reduced to one man who checked the oil meters.

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During the firing, temperatures within the kiln reached up to 2,000 degrees Fahrenheit. In addition to providing a screen between the flame and the bricks, the twelve firebox walls channeled heat towards the top of the kiln. By placing the flues beneath the flooring and connecting them to a nearby stack, heat would be drawn down through the set bricks. Excess heat would be channeled beneath ground through two tunnels; one to the stack and one to the drying shed which utilized a waste-heat system.

Upon completion of the firing, the kiln would be cooled for two or three days. Following this, the temporary doors to the kilns were dismantled and the bricks transferred to the storage lot.

The current status of the brickmaking industry is notable. There are approximately four hundred plants left within the country which are devoted exclusively to the manufacture of brick. Sixty percent of these operate tunnel kilns while a large minority own shuttle and rectangular down-draft kilns. Only a small, and unknown percentage is devoted to the beehive and scove varieties. A very nominal percent may also be assigned to a new variety of steel-jacketed beehives.

The primary factor in the disappearance of so many beehive kilns is economics. Older kilns are often too small for the efficient use of forklifts, necessitating the back-breaking labor of hand-stacking. This is not only expensive but very difficult to find. Also, "periodic" kilns can only be fired once or twice a month if the proper firing and cooling periods are observed. Tunnel kilns, on the other hand, may be fired continuously because the bricks move on conveyors through various heating and cooling chambers within the kiln.

In addition, other aspects of the brick kilns require consideration relative to their registration.

1. They constitute a visibly cohesive complex for the sole purpose of firing bricks.

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2. Their location, degree of alteration, structural safety has to be considered relative to the major intent for which the National Arboretum will use the property.
3. Each kiln is similar in structure but with variations due to changes in technology.
4. The kilns depict and contain the history of a form of manufacture once common to Washington. Because they are the last kilns of this type within Washington, they hold tremendous educational potential and an opportunity to incorporate their charm into the development plans of the National Arboretum.

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1. Chewning, E. Taylor. President, United Brick Corporation, telephone interview, August 19, 1976.
2. "The Passing of Washington's Brick Kilns," The Sunday Star, Washington, D.C., September 17, 1905, p. 6.
3. Dugane, Christopher S. "J.H. Wilkerson and Sons Brick Work," Historic American Engineering Record file report, HAER, Washington, D.C.
4. Scheffel, Walter. Maintenance Manager, United Brick Corporation, interview, August 13, 1976.
5. Hunter, Henry. Former employee, United Brick Corporation, interview, August 13, 1976.
6. All of the figures in this paragraph are courtesy of Richard Otterson, Brick Institute of America, granted in a telephone interview, August 17, 1976.

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