

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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

| | |
|------------------|--|
| FOR NPS USE ONLY | |
| RECEIVED | |
| DATE ENTERED | |

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

1 NAME

HISTORIC

Frank R. Lillie House

AND/OR COMMON

Lillie House

2 LOCATION

STREET & NUMBER

5801 Kenwood Avenue

—NOT FOR PUBLICATION

CITY, TOWN

Chicago

CONGRESSIONAL DISTRICT

1st

STATE

Illinois

— VICINITY OF

CODE

17

COUNTY

Cook

CODE

031

3 CLASSIFICATION

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

4 OWNER OF PROPERTY

NAME

University of Chicago, John T. Wilson, President

STREET & NUMBER

5801 Ellis Avenue

CITY, TOWN

Chicago

STATE

Illinois 60637

— VICINITY OF

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC.

Cook County Recorders Office

STREET & NUMBER

118 North Clark Street

CITY, TOWN

Chicago

STATE

Illinois

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

None

DATE

—FEDERAL —STATE —COUNTY —LOCAL

DEPOSITORY FOR
SURVEY RECORDS

CITY, TOWN

STATE

16

7 DESCRIPTION

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

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Frank R. Lillie House is located at 5801 Kenwood Avenue on the University of Chicago campus. The house, which was built in 1904, was designed by the Chicago firm of Irving K. Pond and his brother Allen Pond. Carl W. Condit writes of the Pond brothers, "Of all the architects who belong to the Chicago school by virtue of their independence from traditional building forms, Irving K. Pond (1857-1939) and his brother Allen (1858-1929) are most difficult to place in any of the various streams of the movements."¹ After establishing a partnership in Chicago in 1886, the brothers were soon drawn into the Chicago movement and, according to Condit, "...were soon producing original work marked by their own unique stamp."² Among the Ponds' better known Chicago buildings are The Toll Building and Hull House Group. In Condit's opinion their best commissions are university buildings, especially the student union buildings at the University of Michigan and Purdue University. The Lillie House is an example of their domestic work. The building is irregular in form and the facades are characterized by flat brick surfaces. The bays vary in style and in groupings. Perhaps the buildings most unusual feature is the use of both gabled and flat roofs. According to Condit, the Ponds' unique style in their grouping of windows, smooth planes of brick, the diamond pattern in the brickwork, the odd shapes of gables and quoins, and the subdued horizontality of the projecting courses, all of which are evident in the Lillie House, "...suggest the new ornamental interests of the time."³

Five thousand, eight hundred and one Kenwood Avenue was the home of Frank R. Lillie, his wife, the daughter of Richard T. Crane of the Crane Plumbing Company, and their large family from its construction in 1904 until Lillie's death in 1947. Dr. Lillie willed the property to the University of Chicago, subject to Mrs. Lillie's life estate. In 1956 the school took over the building. Since 1956 the Lillie House, as it is still known, has served various university functions. It currently houses the Consortium for Educational Leadership.

The exterior of the Lillie House has undergone no alteration since its construction. The interior has been significantly changed. Although the original floor plan of a private residence is largely intact, the rooms have been altered to accommodate the building's public function as a teaching and learning facility.

¹Carl W. Condit, The Chicago School of Architecture, (Chicago, 1964), p. 205.

²Ibid.

³Ibid., p. 206.

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 checked="" 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 checked="" 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 type="checkbox"/> INDUSTRY | <input type="checkbox"/> POLITICS/GOVERNMENT | <input type="checkbox"/> OTHER (SPECIFY) |
| | | <input type="checkbox"/> INVENTION | | |

SPECIFIC DATES 1904-1947

BUILDER/ARCHITECT Pond and Pond

STATEMENT OF SIGNIFICANCE

When Frank R. Lillie died in 1947, numerous eulogies praising his contributions to American science in general and embryology in particular poured into his Chicago home. Although a eulogy is by definition meant to praise a man and his work, and thus is not an objective assessment of the individual and his contributions, at times a eulogy does succeed in cogently summarizing a person's accomplishments. So it was with A. N. Richards eulogy of Frank R. Lillie. "The record which he established of long and able guidance of a great university department," the president of the National Academy of Sciences stated, "the record of that of a chief builder of two great research institutions, of distinguished leadership for a period of the National Academy and the Research Council, and of the affectionate devotion of a host of pupils and colleagues, marks a career which could well be called incomparable."¹

Life

Frank R. Lillie was born June 27, 1870, in Toronto, Ontario. His father was an accountant and wholesale druggist. Lillie received an excellent primary and secondary education at a model school connected with the Provincial School of Education. Although he displayed a strong leaning towards the natural sciences in his youth, it was not until Lillie entered the University of Toronto that he decided not to follow a family tradition and study theology. At Toronto Lillie came under the influence of R. Ramsay Wright and A. B. Macallum, both of whom stimulated his interest in physiological embryology and endocrinology, the areas of zoology in which he would later excell. Upon graduating from Toronto in 1891 Lillie moved to the United States. After first spending a summer at the Marine Biological Laboratory in Woods Hole, Massachusetts, and then a year at Clark University, Lillie entered the graduate program at the University of Chicago. In 1894 he took his PhD in zoology summa cum laude.

From 1894 to 1899 Lillie taught at the University of Michigan and then spent a year teaching at Vassar. In 1900 he accepted a call from the University of Chicago. For the next 30 years the school was his academic address. During

¹A. N. Richards, as quoted in "Frank Rattray Lillie," National Academy of Sciences Biographical Memoirs, 30, (New York, 1957), p. 227.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

- "Frank R. Lillie," Dictionary of American Biography, Supplement 4, (New York, 1974).
- B. H. Willier, "Frank Rattray Lillie." National Academy of Sciences Biographical Memoirs, 30, (New York, 1957).
- B. H. Willier and J. M. Oppenheimer, eds., Foundations of Experimental Embryology, (New York, 1964).

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than one acre

UTM REFERENCES

| | | | | | | | |
|---|------|-------------|---------------|---|------|---------|----------|
| A | 1 6 | 4 5 0 7 4 0 | 4 6 2 6 3 5 5 | B | | | |
| | ZONE | EASTING | NORTHING | | ZONE | EASTING | NORTHING |
| C | | | | D | | | |

VERBAL BOUNDARY DESCRIPTION

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

| STATE | CODE | COUNTY | CODE |
|-------|------|--------|------|
| STATE | CODE | COUNTY | CODE |

11 FORM PREPARED BY

NAME / TITLE

James Sheire, Historian

ORGANIZATION

National Park Service - Historic Sites Survey

DATE

1/27/76

STREET & NUMBER

1100 L Street NW.

TELEPHONE

CITY OR TOWN

Washington

STATE

D.C.

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL X

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

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

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION
ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

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these years Lillie became a distinguished member of the University of Chicago faculty. In 1906 he was appointed professor of embryology and in 1931 was named distinguished service professor. From 1910 to 1931 he served as chairman of the department of zoology and from 1931 to 1935 he held the positions of dean of the division of biological sciences and Andrew MacLeish distinguished professor of embryology.

At the same time as Lillie conducted research and met his teaching responsibilities at Chicago, he also participated actively in the affairs of the Woods Hole Marine Biological Laboratory. Lillie first visited Woods Hole as a young student in 1891, and the well being and development of the institution became his life long interest. In 1908 upon the retirement of his mentor, Charles O. Whitman, Lillie became director of the laboratory. Lillie directed the affairs of Woods Hole until 1925, when he became president of the board of trustees, a position he held until his retirement in 1942.

Lillie also devoted considerable time and energies to the National Academy of Sciences and the National Research Council. He served as president of the National Academy from 1935 to 1939. From 1935 to 1936 he was chairman of the National Research Council and he also functioned as the chairman of its Fellowship Board for many years. Lillie's interest in embryology and the affairs of American science remained strong to the end of his life. He died in Chicago on November 5, 1947.

Work

In the history of science in America Frank R. Lillie was one of those rare individuals who made contributions to the both the pure science concerns of his chosen discipline and also to institutions which provided the framework for his work and the pursuit of science in general. When Lillie began his study of embryology in the 1890's, the discipline was in its infant state. Throughout his long career Lillie's work covered many areas of embryology and he published important papers on a variety of questions. In 1901 he completed the first of his more significant contributions to the subject. In studying the effects of short exposure of eggs to abnormal concentrations of potassium in sea water, Lillie found that unsegmented eggs, both fertilized and unfertilized, underwent well defined phases of differentiation without the presence of either cell division or nuclear division. According to B. H. Willier, an historian of embryology, "This discovery was at the time and still is regarded as a classic on the subject of the degree to which the events of differentiation and growth (cell multiplication) are independent of each other."²

²Ibid., p. 210.

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In still another area of original research Lillie studied the mechanism of fertilization of the egg. In 1919 he brought together the basic results of this work in Problems of Fertilization. Lillie pointed out that fertilization involves a series of precisely timed and irreversible interactions between specific substances borne by the egg and the sperm.

Among Lillie's many other contributions to embryology was his pioneer work on the role of hormones in sex differentiation. In his paper on "The Theory of Freemartin" (1917) Lillie concluded that sex differentiation is controlled by sex hormones circulating in the blood. Lillie's freemartin theory proved to be a strong stimulus to the development of endocrinology and also, according to Willier, "This conclusion marked the inception of a new concept foreshadowing modern notions that the role of sex hormones is to actuate expression of latent differences preexisting among tissues of the reproductive system that is bisexual in embryonic organization."³

In addition to being a highly original researcher Lillie was also an institution builder. Throughout his life Lillie worked to promote the interests of the Woods Hole Marine Biological Laboratory. In 1902 when the institution faced financial difficulties, Lillie solicited financial support from the Rockefeller Foundation, the Carnegie Corporation, the General Education Board, and even an affluent brother-in-law. The laboratory was saved. During the period of Lillie's directorship the facility was placed on a firm financial foundation. Lillie's administration of Woods Hole was characterized by an outstanding degree of cooperation and staff democracy. When he retired in 1942, Lillie could proudly observe that Woods Hole had been built into a research institution of international distinction.

In 1927 at a National Academy of Sciences meeting Lillie proposed that a committee be formed to consider the role of the United States in oceanographic research. The committee's deliberations and final report resulted in the establishment of the Oceanographic Institute at Woods Hole. Lillie, by this time a veteran in such matters, obtained \$3,000,000 from the Rockefeller Foundation for the construction of the physical plant. In recognition of his contributions to the creation of the Oceanographic Institute the National Academy of Sciences awarded him its Agassiz Medal (given for distinguished service to science) in 1940.

³Ibid., p. 218.

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Lillie was also very active in the councils of the country's leading scientific organizations. From 1935 to 1939 he served as president of the National Academy of Sciences. Throughout his life he was also active in the committees of the Academy. He also served as the chairman of the National Research Council for a year and while chairman of the its Fellowship Board formulated the policies and procedures that guided the Council's important fellowship program.

In summing up Frank R. Lillie's contributions to science in America, his principal biographer writes, "He was gifted with scientific insight, administrative ability, and business sense, a rare combination in any one man."⁴

⁴Ibid., p. 199.

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