



THE CITY OF SAN DIEGO

Report to the Historical Resources Board

DATE ISSUED: July 8, 2021 REPORT NO. HRB-21-043

HEARING DATE: July 22, 2021

SUBJECT: **ITEM #4 – Institute of Geophysics and Planetary Physics (IGPP) Munk Laboratory**

APPLICANT: Heritage Architecture & Planning

LOCATION: 8800 Biological Grade, La Jolla Community, Council District 1
APN 344-090-07-00

DESCRIPTION: Review and make a recommendation on the National Register Nomination of the Institute of Geophysics and Planetary Physics (IGPP) Munk Laboratory located at 8800 Biological Grade

STAFF RECOMMENDATION

Recommend that the Historical Resources Board forward a positive recommendation for the Institute of Geophysics and Planetary Physics (IGPP) Munk Laboratory to be listed on the National Register of Historic Places for its significance at the local level under Criterion A in the areas of Education and Science; under Criterion B, for the association with Walter H. Munk; and Criterion C in the areas of Architecture, Landscape Architecture, and Art, per the nomination.

BACKGROUND

This item is being brought before the Historical Resources Board for review and prior to the State Historical Resources Commission's action on the nomination of the Institute of Geophysics and Planetary Physics (IGPP) Munk Laboratory to the National Register of Historic Places.

The Institute of Geophysics and Planetary Physics (IGPP) Munk Laboratory is being nominated to the National Register of Historic Places under Criteria A, B, and C at the local level of significance. It is being nominated under Criterion A in the areas of Education and Science for its association with scientific and academic advancements. It is being nominated under Criterion B for its association with the work of Dr. Walter H. Munk. It is being nominated under Criterion C in the areas of Architecture, Landscape Architecture, and Art, as an excellent example of the Post-and-Beam subset of the Modern architecture style as designed by San Diego Master Architect Lloyd Ruocco; for the landscape architecture of Joseph Yamada; and for the *Spring Stirring* sculpture by Donal Hord. The

subject property lies outside of the jurisdiction of the City and is not eligible for listing on the San Diego Register.

ANALYSIS

A National Register of Historic Places Nomination Report was prepared Heritage Architecture & Planning, which concludes that the resource is significant under National Register Criteria A, B, and C, and staff concurs.

The property includes one contributing building, one contributing site (the landscape), and one contributing structure (the sculpture). The period of significance is 1963 to 1982, beginning the year primary construction was completed through the end of Dr. Walter Munk's tenure as IGPP Director.

NATIONAL REGISTER CRITERION A - Associated with events that have made a significant contribution to the broad patterns of our history.

The National Register Nomination Report finds the property to be eligible under Criterion A at the local level of significance in the areas of Science and Education for its association with the institutional development of both the Scripps Institute of Oceanography (SIO) and the University of California, San Diego (UCSD), as well as being the site of numerous scientific and academic advancements.

Developed to be a centralized space for SIO scientists, the IGPP Munk Laboratory has been the site of many notable contributions to the field of physical and acoustic oceanography and geophysical science since its construction in 1963. In addition to groundbreaking experiments relating to tides and ocean currents conducted by Dr. Munk, the property was also the location where significant papers on inverse theory and plate tectonics were developed in the 1960s. In the 1970s and 1980s, the laboratory was the site of significant analyses in the areas of seismology and geomagnetism. These analyses led to the development of new models of study which have since become widely accepted, including the moment tensor formulism. Several technological advancements, including the first digital seismograph, the first successful ocean-bottom seismograph, and the first functional laser used for measuring strain in the earth, were developed at the IGPP Munk Laboratory. The advancements made at the subject property have had a lasting impact on the fields of oceanography and geophysical science that warrant designation under Criterion A.

NATIONAL REGISTER CRITERION B - Associated with the lives of persons significant in our past.

The National Register Nomination Report finds the property to be eligible under Criterion B at the local level of significance for its association with Dr. Walter H. Munk. Known as "Einstein of the oceans," Dr. Munk was a groundbreaking scientist whose work throughout the twentieth and twenty-first centuries transformed the field of oceanography and geophysics. After attending SIO as a doctoral student, Dr. Munk joined the faculty in 1947. He spent his entire career at SIO, serving as Assistant Professor of Geophysics from 1947 to 1949, Associate Professor from 1949 to 1954, and Professor of Geophysics from 1954 to 2019. Dr. Munk was an integral part of the push to establish a San Diego campus of the University of California, which occurred in 1960.

Dr. Munk was also instrumental in establishing the IGPP in 1959 and served as its first director from 1962 to 1982. Along with his wife, Judith, Dr. Munk spearheaded the construction of the IGPP Munk Laboratory in 1963.

The IGPP Munk Laboratory is directly associated with Dr. Munk's career, specifically during the time he served as IGPP director from 1962 to 1982. The property was the location where many of Dr. Munk's experiments related to tides and ocean currents were conducted. The property is where Munk developed instruments able to measure tides in the open sea with precision of better than one millimeter in five kilometers of water. It was also where he developed instrumentation to study and model internal waves now known as the Garrett-Munk Spectrum. Following his retirement as director in 1982, Dr. Munk continued to work on site until 2000.

NATIONAL REGISTER CRITERION C - Embodies distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

The National Register Nomination Report finds the property to be eligible under Criterion C at the local level of significance in the areas of Architecture, Landscape Architecture and Art.

In 1963, Walter and Judith Munk engaged the services of master architect Lloyd Ruocco to design office and laboratory space for SIO scientists. Designed in close collaboration between Ruocco and the Munks, the IGPP Munk Laboratory was built in the Post-and-Beam subtype of the Modern architectural style. Ruocco was specifically selected by the Munks because he had never designed a laboratory space before. The resulting building is the antithesis of a traditional sterile laboratory space.

The laboratory is situated on a sloped lot overlooking the Pacific Ocean which was specifically selected for its remote location. The building is two stories over a full basement and contains offices, conference rooms, and laboratory space. The wood-frame building sits on a concrete foundation and features a cross-axial plan designed to respond to the unique coastal topography of the site. The building two long rectangular wings arranged perpendicularly, with the upper-level oriented east to west and jutting out toward the ocean. The building is clad in vertical redwood shiplap siding and is covered by a flat roof with projecting eaves, exposed redwood beams, and overhead shade trellises. The upper wing features cantilevered catwalks on its south, west, and portions of the north façades. Fenestration includes operable and fixed wood windows and sliding glass doors, some of which open to the cantilevered catwalks. The entrance to the building is located along Biological Grade and is accessed by a pair of glazed doors topped by louvered transoms located on the east façade of the upper wing.

In 1967, an addition designed by UC San Diego architect Robert "Gus" Thorburn was added to the north end of the lower wing. Thorburn had been a member of Ruocco's staff during the design and construction of the IGPP Munk Lab and the addition is sympathetic to the original construction. The addition is located on the north side of the lower wing and has limited visibility. The addition occurred during the period of significance and does not negatively impact the property's architectural significance. Other modifications to the property are limited to the interior, which are not being considered for designation.

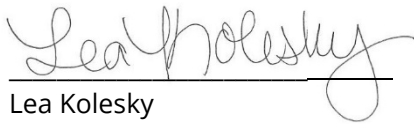
The subject resource embodies several distinctive characteristics of the Post-and-Beam substyle of the Modern architectural style, including floor-to-ceiling glass; direct expression of the structural system; a flat roof with wide, overhanging eaves; horizontal massing; minimal use of solid load-bearing walls; repetitive façade geometry; and a strong interior/exterior connection, evident through the extensive use of sliding glass doors and the property's designed outdoor spaces, including a patio originally used for outdoor lectures and gatherings.

Located to the north and south of the building, the property features a significant landscape designed by the noted landscape architectural firm of Wimmer and Yamada. The north landscape evokes a Japanese style garden, while the south landscape is far less formal and more representative of native ecology. Both landscapes were designed prior to the architecture. Elements of the original landscape design include mature Melaleuca trees, some Pittosporum and Juniper shrubs, and all original concrete walkways and patio paving. The landscape has been minimally altered, including the in-kind replacements of original redwood benches and the replacement of some original plantings and grass with water-conscious plants and decomposed granite mulch. Overall, these modifications do not impact the integrity of the designed landscape.

The northern garden features the 1948 sculpture by San Diego sculptor Donal Hord, *Spring Stirring*. Hord was an internationally known artist who worked primarily with diorite, jade, mahogany, and obsidian. *Spring Stirring* was gifted to SIO by benefactors Cecil and Ida Green at the request of Judith Munk, who herself was an accomplished sculptor and had studied under Hord. The black diorite sculpture was included in the original landscape plans by Wimmer and Yamada and was mounted in a small basin carved into a stone plinth before being installed in the IGPP's northern landscape in 1964.

CONCLUSION

Based on the information submitted, it is recommended that the Institute of Geophysics and Planetary Physics (IGPP) Munk Laboratory be listed on the National Register of Historic Places for its significance at the local level under Criterion A in the areas of Science and Education, under Criterion B for its association with Dr. Walter H. Munk, and Criterion C in the areas of Architecture, Landscape Architecture and Art, per the nomination.



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Junior Planner



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Development Services Department

lk/ss

Attachment(s):

1. Applicant's National Register of Historic Places Nomination Report under separate cover