

MAXWELL E. BRITTON (1912–2004)

Maxwell E. Britton, a well-known and highly respected Arctic research scientist and administrator, died at his home in Arlington, Virginia on March 16, 2004. He was 92. Recognized for his dedication to Arctic research, he pioneered innovative ways of pursuing research under the extreme conditions of the far North. Further, Britton was one of the first scientists to specialize in Arctic ecology.

Max Britton was born on January 26, 1912 in Hymera, Indiana, a small mining town 40 miles west of Bloomington. After attending public schools in Hymera, he went to Indiana State College where he received his AB degree, in 1934. This graduation was followed by one year of teaching history, hygiene, and agriculture at Hymera Junior High School. He then attended Ohio State University, where he was awarded an MS degree in 1937. His doctorate, however, was earned at Northwestern University in 1941. Three years earlier, Max had been given an instructorship, which began an association with the faculty at Northwestern University that lasted until 1955. It was during this period that he married Lenoir Gardner. Max's tenure at Northwestern was interrupted by World War II. Drafted into the U.S. Army in August 1943, Max spent 30 months in the service (August 1943 to January 1946) with 22 months in the Southwest Pacific. His last year as a Northwestern faculty member was spent on research leave at Stanford University.

While at Stanford, Max was offered a position with the Office of Naval Research (ONR), a position he at first declined but later accepted, with the idea of remaining only two years. Four months after Max reported to Washington, D.C., his wife died. Once Max became engrossed in the Arctic program at ONR, he decided to continue in that position and remained there until 1971.

Britton's duties included monitoring the Navy contract with the Arctic Institute of North America (AINA). It was there that he met Vera Kamilla Marz, who became his second wife. He became affiliated with AINA after he retired from ONR. Then in 1974, Max joined the U.S. Geological Survey (USGS). As a staff member, he advised the Director on matters dealing with Naval Petroleum Reserve No. 4 located on the North Slope of Alaska. He retired from the USGS in 1983 to his home in Arlington, Virginia. His second wife, Vera K. Britton, preceded him in death by a few months, after 46 years of marriage.

Max Britton had an early start as a research scientist. During his freshman year in botany at Indiana State College, he excelled to the point that Dr. Ben Smith, his instructor, offered him a job as a laboratory assistant. Max, considering such recognition an honor, held the position until he graduated three years later. This experience motivated Max, who decided early to pursue an academic career. He dedicated himself to the world of the microscope and was sufficiently proficient that he published three papers on Indiana algae while he was still an undergraduate.



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Dr. Smith recommended that Max continue his research at Ohio State University with Dr. L.H. Tiffany and Dr. E.N. Transeau, both prominent phycologists during the 1930s. Max's master's thesis was entitled "The Freshwater Algae of Puerto Rico." Dr. Tiffany, who moved to Northwestern University as the Chair of the Botany Department, asked Max to accompany him for work on a doctorate, which he did. Max's experience as a teaching assistant during his first year at Northwestern led to appointment as an Instructor in 1938. His dissertation "The Distribution of Algae in the Chicago Region" was completed in 1941.

Whereas most academics placed their research on hold during military service in World War II, Max was the exception. Although starting out in the Infantry, he was soon reclassified as a Medical Technician, which provided him with access to a microscope at bases in New Guinea and the Philippine Islands. Samples he collected and studied during those years led to the publication of several papers on the algae of New Guinea and the Philippines.

Upon returning to Northwestern University after the war, with a promotion to Associate Professor, Max began to "enlarge his horizons." His curiosity about the developing field of ecology, led to the laying out of a new program for research into the ecology of the Arctic tundra. This research, which proved attractive to the sponsors in the ONR, was pursued during his sabbatical leave at Stanford

University and, when time permitted, after he joined ONR in 1955. After investigating the role of independent variables such as climate, flora and fauna in determining the qualitative and quantitative characteristics of micro-climate, geomorphic process, vegetation and soils, Max delivered a comprehensive paper entitled "Vegetation of the Arctic Tundra" at the 1957 Corvallis Biological Colloquium on Arctic Biology. His thaw-lake cycle formulation was included in this paper, as well as other insightful observations. Colleagues considered this exposition as the base for many successive research projects on the Arctic tundra. Although it might be considered the culmination of Britton's own research, it can also be considered a representative sample of the quality of work that he, as a Scientific Officer for ONR's Arctic Program, demanded. Max's dedication to basic research resulted in a legacy of information that greatly helped designers of the transAlaska pipeline to minimize the impact of this structure on the environment. Between 1959 and 1966, he was a steadying force on the Committee on Environmental Studies (the "Bioenvironmental Committee") for Project Chariot for the Atomic Energy Commission.

As Scientific Officer of the Naval Arctic Research Laboratory (NARL), Max Britton was enthusiastic in his support of all kinds of basic research, both within and outside his own field of expertise. For example, he backed the launch of solid-fuel meteorological sounding rockets to study the Arctic atmosphere 80 miles up. Max helped initiate the idea of establishing research camps on drifting ice floes in the Arctic Ocean to conduct baseline research on ocean currents and the behavior of the polar ice cap. One of these stations was active during a four-year period of drift from the area north of Alaska to the area north of Iceland and east of Greenland, where it was abandoned. Although these studies were primary areas of interest to the United States Navy, laboratory research continued to include land-based studies. The program was described as "broadly environmental in nature" with the presumption that if the U.S. Navy was to operate in the Arctic, it must know as much as possible about the total environment. NARL was operated as a national facility open to all federally funded scientists and engineers. He promoted a wide gamut of research, but did not ignore the demographics of the local people. He felt that their contribution and knowledge of the local environment were of primary importance in accomplishing the goals of the laboratory.

In an internal memo during the late 1960s, Britton reflected on his role with the Arctic Research Laboratory vis-à-vis the Navy for balancing the secrecy of mission-oriented research and the demands of scientists for openness in basic research. "Thus far," he wrote, "we have managed to keep the program free of security wraps on a completely academic/basic science basis and still answer some important questions for the Navy. There are signs that this battle may not always survive but to this point the record cannot be impeached."

In recognition of his many contributions to both Arctic science and continued research, the investigators at the ARL informally named the area of the tundra where Dr. Britton pursued his research as "Britton Manor." If you said to anyone at the ARL, "I'm going to the Manor" everyone knew where you were headed. After 30-plus years of unofficial acknowledgement, the Iñupiat Heritage Center at Barrow made it an official designation. Max's years of dedication to the ARL (later to be renamed the Naval Arctic Research Laboratory) were further recognized during the 50th anniversary celebration of its founding. Max presented, as a keynote address, a history of the research accomplished with the assistance of the ARL. He was recruited to write the Foreword to the volume published by AINA commemorating the laboratory's first half-century at Barrow (Britton, 2001). Authors of another chapter in that volume commented on Max Britton's influence on research:

We were reminded in 1997 that current arctic investigators owe much to the style of Dr. Max Britton's leadership from the Office of Naval Research (ONR). Even now, a number of years and steps removed from his direct personal contact, science bearing the Britton style and philosophy is manifest in the Arctic. His style of guiding research (more than managing it) persists wherever investigators are trusted to plan and execute work in the best interests of the arctic community as a whole (Norton and Weller, 2001:236).

Dr. Britton received honorary doctorates from the University of Alaska and the Indiana State University in recognition of his contributions to basic Arctic science, and he received the Department of Interior's Meritorious Service Award in 1983. He was a member of the American Geographical Society, the American Geophysical Union, the American Institute of Biological Science, the American Society of Limnology and Oceanography, the Botanical Society of America, and Sigma Xi. In 1953 and 1954, he was also a member of the Executive Committee on Geography and Climatology of the National Research Council. Max Britton was an extremely talented writer and a master of the English language as is well reflected in his published scientific papers.

His abilities and dedication to administrative duties are well demonstrated by the following statement, made by Evelyn Pruitt, the Chair of the Geography Branch at ONR, in an assessment sent to the Performance Rating Board in April 1964:

In all particulars his superlative performance far exceeded the norm. His distinguished activities brought credit to the Navy, increased the prestige of the Geography Branch, heightened the Navy value and utility of the Arctic Program, and assured the successful and timely discharge of Branch responsibilities.

Well known for his incomparable knowledge of the Arctic, dedication to basic research, and active advocacy of teamwork in the search of scientific truth, Max Britton is equally well known for his ever-elegant hospitality and warm, welcoming friendship.

REFERENCES

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John F. Schindler
2473 Captain Cook Drive
Anchorage, Alaska, U.S.A.
99517-1254