MARIA, May (Hickey). December 16, 1904–June 8, 2001. RICE INSTITUTE (BA 1926, MA 1927, PhD 1929).

Deborah May Hickey was born in Lumberton, Mississippi, the fifth of seven children of Edna May (Adams) (1873–1955) and Charles Robert Hickey (1874–1956), both of Alabama. In the early years of her parents' marriage, her father farmed in Alabama, where the first four children were born: Charles Middleton (1897–1991), Thomas Earl (1899–1984), Ernest Pleasanton (1900–1993), and Mary Ruth (1902–1990). The family lived in Mississippi when Deborah May and Maude Isabel (1907–1954) were born; by 1910 the family had moved to Dallas, Texas, where May Hickey's father was working as a laborer. The youngest daughter, Martha Louise (1911–1980), was born in Deport, Texas.

When May Hickey was in the seventh grade, the family moved to Houston so the children could attend Rice Institute (now Rice University), which provided tuition-free education to white residents of Houston until its charter was modified in 1963. While there, her father, who had not attended high school, worked for an oil refinery, an automobile assembly plant, and then the railroad. Her mother, who had attended high school and worked in dressmaking and millinery, took a course in stenography and became a secretary. May Hickey Maria recalled in 1992 that much of her education occurred at home; for example, her mother frequently read aloud to the children, Charles Dickens being among the selections. May, who had always liked mathematics, and her sisters went to public high school in Houston Heights. All seven children eventually attended Rice, earning altogether six bachelor's degrees, one master's degree, and one PhD from that university, and two master's degrees from other universities. Her brothers became engineers, two sisters were teachers, and one did clerical work in a bank.

May Hickey graduated as valedictorian from Houston Heights High School before entering Rice Institute in 1922. She was named a Hohenthal scholar after her first year and received the Graham Baker student award in 1924. She graduated from Rice in 1926 with honors in mathematics. She continued to study, as a fellow, the next three years in the graduate school there. Hickey earned her master's degree with honors in mathematics and physics in 1927, and a paper based on her thesis appeared in the *Annals of Mathematics* in 1929. When she was awarded her doctorate in 1929, she became the first woman to earn a PhD in any field at Rice. The published version of her dissertation appeared in the *American Journal of Mathematics* in 1932.

Hickey spent the year 1929–30 in Munich as a holder of the Alice Freeman Palmer fellowship of the AAUW, for which she received \$1600. She went there specifically to study with Constantin Carathéodory whom she had first met at Rice and whose lectures she had heard at the University of California in Berkeley in the summer of 1928. While at Munich she took two courses with Carathéodory and participated in a seminar during the spring semester. She also traveled alone to Italy on a vacation while in Europe that year.

When May Hickey returned from Munich she took a position as professor of mathematics at Delta State Teachers College in Cleveland, Mississippi, replacing Julia Dale, who had been chairman of the department before leaving in 1930. Hickey remained as professor and chairman in the one- or two-person department at Delta

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State until 1938. During that period two of her mathematics research papers appeared, and she prepared a chapter for a Mississippi Department of Education publication on improvement of instruction.

On June 2, 1938, Deborah May Hickey married Alfred Joseph Maria (December 4, 1896–June 14, 1964). Maria, a native of Norfolk, Virginia, graduated with a BS in chemical engineering from the Massachusetts Institute of Technology in 1922. He received a fellowship to Rice that fall and received a master's degree in 1923 and a PhD in 1925 in mathematics from Rice Institute. May Hickey was a student of his in both her freshman and junior years at Rice. Early in his career A. J. Maria taught at Rice, the University of Illinois, and Duke; he held an NSF fellowship abroad; he was a research fellow at Princeton; and he spent a year at the Institute for Advanced Study.

After their marriage May Hickey and Alfred J. Maria spent some time in Houston and then in Norfolk, Virginia, with his parents. In the summer of 1939, May Maria taught at the State Teachers College in Radford, Virginia. In 1939 they moved to New York City where both eventually became affiliated with Brooklyn College. Albert J. Maria first obtained a temporary appointment as tutor; he began in the day session in spring 1939 and had continuous employment at Brooklyn College after that. He was an instructor 1939–47, assistant professor from 1947 to about 1956, and then associate professor. Because of a brain tumor, he was on leave in the spring semester before his death in June 1964.

May Hickey Maria was an instructor in the evening session 1939–41 and in the summer session 1940-45 at Brooklyn College. She was a substitute in the day session 1941-42 when someone left for war-related work. She was an instructor at Queens College 1942–43. Her regular appointment at Brooklyn began after the war when she was an instructor 1946–55 and received tenure in 1948. She was an assistant professor 1955–62 and an associate professor 1962–75; she never applied for promotion to full professor. Both May Hickey and Albert J. Maria taught in summer school in the earlier years. He also taught in the division of graduate studies his entire time at Brooklyn as did she from the mid-1950s. Her 1958 book on an axiomatic development of arithmetic and algebra was used in a course designed to satisfy the school's mathematics requirement. In summer 1959 she taught in an NSF institute for high school teachers at Arizona State University. While living in New York she was a regular attendee of regional meetings of the AMS and the Metropolitan New York Section meetings of the MAA, the latter starting with its organizational meeting in 1941. When she was teaching at Delta State she had attended meetings of the Louisiana-Mississippi Section of the MAA and served as secretary 1932–33.

After her retirement in 1975 May Maria continued to live in her apartment a few blocks from Brooklyn College, where she had lived since 1941. She was a member of the Church of the Nativity, an Episcopal church in Brooklyn. In 1992 she was planning to move to Texas and did so the following year. She then lived at Westminster Manor, a retirement home in Austin.

May Maria died at Seton Medical Center in Austin in 2001. She was ninetysix. She was survived by a dozen nieces and nephews and was buried in Austin Memorial Park. The obituary notes that "throughout her life, she inspired others by her unshakable integrity and optimism, her independent spirit, and her lifelong passion for learning." Book Web Page MARIA - 3

Organizational affiliations: AMS, MAA, AWM, AAAS, AAUW, Phi Beta Kappa, Sigma Xi.

Theses and dissertation:

1927 [Hickey, D. M.] Green's function at the point of equilibrium. MA thesis, Rice Institute, directed by Griffith Conrad Evans. Typescript.

1929a [Hickey, M.] The fifth degree equation. Minor thesis, Rice Institute. Typescript.

1929b [Hickey, M.] The Heisenberg theory. Minor thesis, Rice Institute. Typescript.

1929c [Hickey, D. M.] A three dimensional treatment of groups of linear transformations. PhD dissertation, Rice Institute, directed by Lester Randolph Ford. Typescript.

Publications:

1929 [Hickey, D. M.] The equilibrium point of Green's function for an annular region. Ann. of Math. 2nd ser., 30:373-83. Published version of MA thesis. Review: JFM 55.0887.04 (E. Rothe). Presented by title to the AMS, New York City, 29 Oct 1927; abstract: Bull. Amer. Math. Soc. 34:9~#26.

1932 [Hickey, D. M.] A three-dimensional treatment of groups of linear transformations. *Amer. J. Math.* 54:635–47. Published version of PhD dissertation. Reviews: *JFM* 58.0670.02 (R. Weitzenböck); *Zbl* 005.29605 (P. J. Myrberg). Presented by title as "Isometric circles on the sphere" to the AMS, New York City, 27 Dec 1928; abstract: *Bull. Amer. Math. Soc.* 35:173 #36.

1935 [Hickey, D. M.] A note on the equilibrium point of the Green's function for an annulus. *Bull. Amer. Math. Soc.* 41:389–93. Reviews: *JFM* 61.0534.03 (E. Rothe); *Zbl* 012.06902 (J. J. Gergen).

1939 [Hickey, M.] The efficiency of certain shapes in nature and technology. $Math.\ Teacher\ 32:129-33.$

1958 The Structure of Arithmetic and Algebra. New York: John Wiley and Sons. Reviews: Amer. Math. Monthly 67:92–93 (D. A. Norton); Zbl 098.24502 (H. Rohrbach).

Abstract not listed above:

1935b [Hickey, M.] Groups of space transformations resulting from inversions in spheres. *Amer. Math. Monthly* 42:410 #1. Presented to the MAA and the NCTM, Pineville, LA, 29 Mar 1935.

References to: AmMSc 5-6.

Rhoades, Tracey. "Teaching Tenacity." Sallyport: The Magazine of Rice University, Winter 1997.

"Deborah May Maria." (Obituary) Austin (TX) American-Statesman, 11 Jun 2001. "Maria, May H." (Death notice) $New\ York\ Times$, 12 Jun 2001.

Other sources: Smithsonian questionnaire 1982; author's conversation with May H. Maria 1992; communications with Austin (TX) Public Library and with Cook-Walden Funeral Home (Austin, TX); "Prof. Alfred J. Maria, 67, Mathematician at Brooklyn," (Obituary) New York Times, 17 Jun 1964; US Census 1900 AL, 1910, 1920, 1930 TX; SSDI.

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