

**RAYMOND CARHART (1912-1975) PAPERS, 1938-1975**  
**SERIES 20/13**  
**BOXES 1-11 (including one half-size box)**

**BIOGRAPHY**

Raymond Thomas Carhart was born on March 28, 1912, in Mexico City, son of Raymond Albert and Edith (Noble) Carhart. He received a Bachelor of Arts degree in Speech and Psychology from Dakota Wesleyan University in 1932, and the Master of Arts (1934) and Doctor of Philosophy (1936) degrees in Speech Pathology, Experimental Phonetics and Psychology at Northwestern University.

Carhart remained at Northwestern with the title of Instructor in Speech Re-education from 1936 to 1940. In 1940 he was promoted to Assistant Professor and in 1943 to Associate Professor. The following year he joined the Medical Administrative Corps, U. S. Army, as a captain. Carhart served as Director of the Acoustic Clinic and as Acoustic Physicist at the Deshon General Hospital in Butler, Pennsylvania until 1946. He then returned to Northwestern where he became Professor of Audiology in 1947, a position he held until his sudden death on October 2, 1975. In 1948 Carhart was appointed Assistant Professor of Otolaryngology at the Medical School in recognition of his work on the Chicago Campus; he was made a full Professor in 1952.

Several administrative positions were also assigned to Carhart. From 1942 to 1947 he was Director of Education of the Deaf and Hard of Hearing. In the latter year he was appointed Director of Hearing Clinics; he was also in charge of the Auditory Research Laboratories. He held the post of Head of the Audiology Program from 1953 until shortly before his death.

Carhart combined in a remarkable degree the roles of teacher and researcher. As a teacher he was lucid and enthusiastic with all levels of students, treating each as an individual but expecting substantial efforts on their parts. He guided 45 doctoral candidates and post-doctoral students to the completion of their work, and many of these moved into the upper echelons of their fields. His students' feelings toward him were well summed up on the plaque of the portrait they commissioned for the Frances Searle Building. This states simply, "Raymond Carhart, Teacher, Scholar, and Friend. From his students."

As a researcher Carhart was honored by the grant of a Research Career Award beginning in September 1963 by the National Institute of Neurological Diseases and Blindness. He was called on many times to evaluate research projects in educational, commercial, and governmental institutions and programs. His recommendations on individuals were widely sought. It was in audiology that Carhart made his major contribution. He popularized the word itself (although he did not coin it), and established the first academic program in audiology in the United States. He did much to give the word and the field truly scientific significance. He developed and refined speech audiometry and used this tool effectively in evaluating the efficiency of hearing aids in a great variety of individuals. The techniques of interpreting the pure-tone audiogram remain as one of his outstanding contributions. Carhart did his early work in the acoustics of the vocal tract. He then moved on to various problems in psychoacoustics such as masking, binaural fusion and lateralization, and both threshold and supra-threshold power integration. He achieved lasting eponymic fame at the First International Congress of Audiology held in Stockholm in 1950. Here he described an important, previously unsuspected, shift in bone-conducted hearing (produced by otosclerosis) that disappeared after successful stapes surgery. This condition is still known as the "Carhart Notch".

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Many organizations and governmental groups benefited from Carhart's advice and service. He served as President of the American Speech and Hearing Association at a trying time in its organizational life and was a Fellow of the Association for many years. This Fellowship, along with one in the Acoustical Society of America and an Associate Fellowship in the American Laryngological, Rhinological, and Otological Society, were among his most cherished scientific honors. He was also a member of the Otosclerosis Study Group, the American Otological Society, and the International Society of Audiology among others. Carhart served as a consultant to the U. S. Army (1946-1952). He was a member of the National Research Council's Committee on Hearing (1948-1952) as a consultant to the Committee on Conservation of Hearing, American Academy of Ophthalmology and otolaryngology (1944-65); and a consultant in audiology to the Veterans Administration (1955-61). This last position involved him in a vigorous controversy over the evaluation of hearing impairment in veterans. He also served the VA as Chairman of its Advisory Committee on Hearing Aids. The Beltone Institute for Hearing Research counted him among their Trustees for almost 20 years. Carhart was a member of the National Advisory Council on the National Institute of Neurological Diseases and Stroke, 1965-69, and at one time was seriously considered for appointment as Director of the NINDS. He was also active in promoting high quality in education and training.

Carhart's articles, chapters, and reports number more than 140, from 1938 to 1975. Of these 45% were produced after he embarked on his Research Career Award. Many of his publications have been of considerable importance.

In addition to career award and his various fellowships Carhart received the Award of Merit from the American Academy of Ophthalmology and Otolaryngology (1960), the Honors of the American Speech and Hearing Association (1960), and The Alumni Medal from the Northwestern University Alumni Association (1974). On his 61st birthday his students honored Carhart with a research colloquium held at Northwestern.

On August 2, 1935, Carhart married Mary Ellen Westfall, and three children were born of this marriage: Richard Alan, Robert Noble, and Raymond Edgar. There are five grandchildren. Mrs. Carhart died December 24, 1971, and on March 31, 1973, Carhart married Jeanette Davis Grunig.

Carhart holds a distinguished position as the founder and chief pioneer in the field of audiology. The Frances Searle Building (dedicated in 1972), which houses Northwestern's Communicative Disorders Department, was conceived, planned, and built largely through his efforts. His most widespread effects, however, are found directly in the impressions he made upon his students and indirectly in the benefits reaped by so many of the hard-of-hearing as a result of Carhart's decades of research and evaluation.

### **DESCRIPTION OF THE SERIES**

The Raymond Carhart Papers are arranged in five main categories. In addition, **Biographical Material**, 1 folder, Box 1, consists of news stories and articles concerning awards, appointments, and research; obituaries; *curricula vitae*, including a list of his publications. Several of these items contain photographs of Carhart.

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1. **Correspondence, Committee and Group** (1946-75), 25 folders, Boxes 1-3, from and to Carhart, with some letters in which Carhart is not directly involved. These folders also contain some reports, minutes, and supplemental material. Major groups include Northwestern University (Audiology Program, 1971-75; Department of Communicative Disorders, 1971-75; School of Speech, 1946-75; University Press, 1973-75; et al.); National Academy of Sciences (Panel on Hearing Aid Performance, 1972-75); National Institute for Neurological Diseases and Stroke (Collaborative and Field Studies, 1972-73; Editorial Committee, 1974-75; Science Information Program Advisory Committee, 1969-73); Veterans Administration (Consultants on Hearing Aid Performance, 1956-74; Rating Schedule, 1950-66).
2. **Correspondence, Individual** (1947-75), 32 folders, Boxes 4-7, from and to Carhart with some letters in which Carhart is not directly involved. These folders also contain some drafts-of publications and supplemental materials. Major folders include correspondence (to and from Carhart) and drafts of papers by Walter Loftiss; correspondence (to and from Carhart) with Michael Pollack, and drafts of chapters in the book, "Amplification for the Hearing-Impaired" (published by Grune and Stratton in 1975) of which Pollack was the editor and for which Carhart wrote a substantial introduction; and Roy Wood, Dean of Northwestern's School of Speech.
3. **Drafts of Speeches and Publications** (1962-75), 13 folders, Boxes 8-9. These include manuscript notes for speeches, typed drafts (or summaries) of speeches and papers, dittoed copies (and some ditto masters) of papers.
4. **Reprints** (1938-75), 5 folders, Box 10. Reprints of articles, reports, and chapters in books (list of these in Biographical folder).

The Raymond Carhart Papers will be of special interest to those seeking information on the development of the first academic program in audiology in this country and to those interested in the coining and use of the word "audiology".

Major gaps in these papers are in the correspondence file for the School of Speech, 1947-55 and 1960-65; Drafts of Speeches and Publications, prior to 1962; and Reprints, 1951-56. Three folders are restricted: Box 2, Folder 19, National Academy of Sciences, Panel on Hearing Aid Performance, 1972-75; Box 2, Folder 26, Veterans Administration, Rating Schedule, 1950-66; and Box 7, Folder 59a, Personnel and Financial.

**Processor:** William K. Beatty, 1976.

**Addition, Box 11, 1961-1969**

This addition to the Raymond Carhart Papers fills one half-box and spans the years 1961 to 1969. It is comprised of one folder of correspondence and one folder containing proposals on the American standard specifications for audiometers. Both folders are

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arranged chronologically. These folders document Carhart's participation on a committee of the American Standard Association, which prepared standard specifications for audiometers.

**Provenance:** This addition was separated from the Tom Tillman Papers, series #20/16.

**Separations:** None.

**Restrictions:** None.

**Processor:** Alex Strauss, July 1998

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**Container List**

<b><u>Box</u></b>	<b><u>Folder</u></b>	<b><u>Title</u></b>	<b><u>Dates</u></b>
1	1	Biographical Material	n.d.
	2	Corres., Committee and Group, American Audiology Society	n.d.
	3	American Speech and Hearing Association	n.d.
	4	Audiology - Coining and Use	n.d.
	5	Beltone Institute for Hearing Research	n.d.
	6	Mather Study – 1958	n.d.
	7	Midamerica Hearing Foundation Information	n.d.
	8	Military Audiology & Speech Pathology Association	n.d.
	9	Northwestern University Audiology Program, Correspondence	1972-75
	10	Memos	1971-74
	11	Steering Committee	1972-74
	12	Department of Communicative Disorders	1971-75
	13	School of Speech, Correspondence	1946-75
2	14	Graduate School Correspondence	n.d.
	15	University Press	1973-75
	16	University Committees	n.d.
	17	University Memos	n.d.
	18	University Statutes	n.d.
	19	Nat'l Acad. of Sciences, Panel on Hearing Aid Performance	1972-75
	20	National Research Council, Committee on Hearing, Bioacoustics, and Biomechanics, Working Group 76	n.d.
	21	National Institute for Neurological Diseases and Stroke, Collaborative & Field Studies	1972-73
	22	Editorial Committee	1974-75
	23	Science Information Program Advisory Committee	1969-73
	24	Society of Hearing Aid Audiologists	1948-54
	25	Veterans Admin., Consultants on Hearing Aid Performance	1956-74
	26	Rating Schedule	1950-66
		<b>Correspondence, Individual</b>	
4	27	A	n.d.
	28	B	n.d.
	29	C	n.d.
	30	D	n.d.
	31	E	n.d.
	32	F	n.d.
	33	G	n.d.
	34	H	n.d.
	35	I-J	n.d.
	36	K	n.d.

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		<b>Correspondence, Individual</b>	
5	37	L	n.d.
	38	Loftiss, Walter	n.d.
	39	Manuscripts	n.d.
	40	M	n.d.
	41	Mc	n.d.
6	42	N	n.d.
	43	Northwestern Univ. Misc.	n.d.
	44	O	n.d.
	45	Olsen-Chin	n.d.
	46	P	n.d.
	47	Personnel Dept.	n.d.
	48	Pollack (Hearing Impairment Book)	n.d.
	49	Q-R	n.d.
	50	Research Career Award	n.d.
7	51	S	n.d.
	52	Shambaugh, George Jr.	n.d.
	53	T	n.d.
	54	U-V	n.d.
	55	W	n.d.
	56	Wightman, Frederic	n.d.
	57	Wood, Roy	n.d.
	58	X-Z	n.d.
	59	Clippings	n.d.
8	60	Drafts of Speeches & Publications	n.d.
	61	“ ”	1962-65
	62	“ ”	1966
	63	“ ”	1967
	64	“ ”	Jan.-Feb., 1968
	65	“ ”	Mar.-Dec.,1968
9	66	“ ”	1969
	67	“ ”	Feb.-Nov.,1969
	68	“ ”	1970-71
	69	“ ”	1972
	70	“ ”	1973-74
	71	“ ”	1975
	72	“ ”	Apr.-Nov.,1975

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10	73	Reprints	1938-43
	74	“ ”	1944-60
	75	“ ”	1961-65
	76	“ ”	1966-68
	77	“ ”	1969-75
		<b><u>ADDITION</u></b>	
11	1	Correspondence	1961-1968
	2	Proposals on American standard specifications for audiometers	1961-1969

*Note: Box 7 Folder 59a Personnel and Financial Matters: **RESTRICTED***