



Arnold Trehub Papers

ca.1948-2017

6 boxes, 3 computers (14 linear feet)

Call no.: FS187

Collection overview

Arnold Trehub, born in Malden, Mass. in 1923, was an active and very well respected cognitive scientist and researcher, artist, and World War II veteran. Trehub earned his BA from Northeastern University and his PhD from Boston University, though his undergraduate education was interrupted by the War. Serving in the Pacific Theater, he worked as a radio technician for B-29 bombers, two of which were the Enola Gay and the Bockscar. For most of his professional life, Trehub was the director of a research lab at the VA Hospital in Leeds, Mass. and an adjunct professor at the University of Massachusetts Amherst. His research on the neurophysiology of the human brain and the nature of consciousness appeared in numerous journals and edited volumes and his best known book, *The Cognitive Brain*, was published by MIT press in 1991. Trehub was a resident of Amherst since 1954 and passed away on April 3rd, 2017.

The Arnold Trehub Papers primarily document his work as a cognitive scientist, including drafts and copies of articles, research data, research notes on paper and as digital files, and a rich collection of Trehub's professional email correspondence. In addition to the content of his research, the Trehub Papers also exhibit the processes and approach of early personal computer-aided research design, data design, and research graphics. There is also a small amount of Trehub's undergraduate student work.

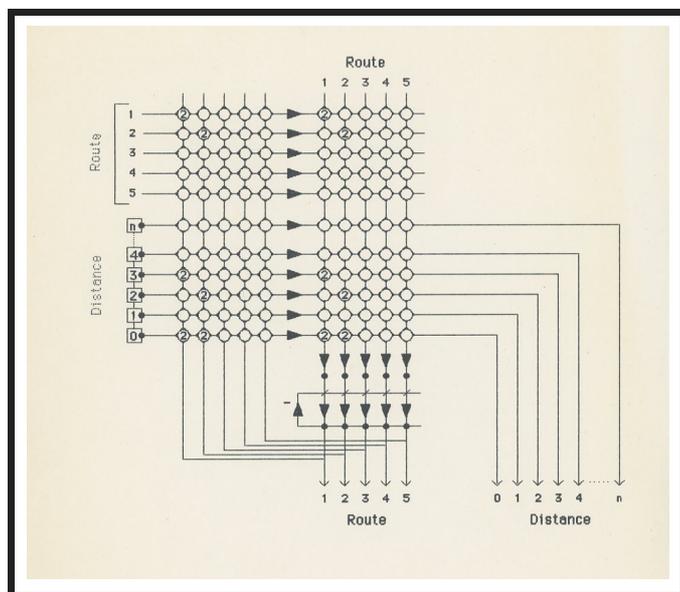
Background on Arnold Trehub

Arnold Trehub was born in Malden, Massachusetts, in 1923. Prior to becoming a well known and respected cognitive scientist and researcher, Trehub served in the United States Army Air Force during World War II. He was a freshman at Northeastern University when Pearl Harbor was attacked. Trehub enlisted and began working in the Pacific Theater, where he was a radio technician for B-29 Bombers, including the Enola Gay and the Bockscar -- the planes that ultimately dropped the bombs on Hiroshima and Nagasaki. After the War, Trehub returned to Northeastern to receive his BA, and went on to attain his MA and PhD in psychology from

Boston University.

Trehub moved to Amherst in 1954 after accepting a position as Director for the research lab at the VA Hospital in Leeds, Mass. Trehub and his wife, Elaine, raised their family in Amherst and were among the founding members of the Jewish Community of Amherst.

He joined UMass as an adjunct professor in 1979. His research on the neurophysiology of the human brain and the nature of consciousness appeared in numerous journals and edited volumes and his best known book, *The Cognitive Brain*, was published by MIT press in 1991. Trehub continued to teach classes, conduct research, and publish his findings until 2016. Trehub died in Amherst on April 3, 2017.



*Draft of a synaptic matrix for Trehub's book, **The Cognitive Brain**, ca. 1987*

Scope of collection

The Arnold Trehub Papers primarily document his work as a cognitive scientist. It includes drafts and copies of articles, research data, his professional email correspondence, and many drafts of the manuscripts and research that ultimately became *The Cognitive Brain*.

In addition to the content of his research, the Trehub Papers also exhibit the processes and approach of early personal computer-aided research design, data design, and research graphics. The collection also includes his academic work from his years at Northeastern and Boston University, like notebooks, academic papers, and research.

Another prominent feature of the Collection are some of Trehub's actual computers, including an Apple Lisa 2, Apple II Plus, and a Macbook Pro.

Series descriptions

Biographical

1950-2017

The Biographical series includes Trehub's yearbook from his senior year at Northeastern University, newspaper clippings, certificates, and his CV. Also included is a biographical pamphlet created by his family for his funeral, which contains a timeline of his life that represents parts of the collection. This series is arranged chronologically.

Writing

1948-2016

The Writing series is the bulk of the collection, and consists of both his academic and professional work, including a large amount of research and correspondence directly related to the publication of *The Cognitive Brain*. Research and correspondence that pertains to specific articles is placed with the manuscript for each article. Some content, including the entirety of *The Cognitive Brain*, can be found on floppy disks and CDs, as well as in hard copy. This series is arranged alphabetically.

Professional activities

1959-2005

The Professional Activities series includes an assortment of articles written by his professional peers in the field of Cognitive Science with occasional commentary, administrative paperwork from his decades of work with the VA Hospital in Leeds and at UMass, and his professional email while employed at UMass Amherst. This series is arranged alphabetically, and then chronologically.

Technology

ca. 1979-2008

The Technology series contains some of the computers used by Trehub during his career.

Inventory

Biographical	1950-2017	
Northeastern University yearbook	1950	Box 1: 1
Boston University commencement program	1954	Box 1: 2
Newspaper clippings	1967	Box 1: 3
Certificate, AAAS 50 year life member	2005	Box 1: 4
CV, biography	ca. 1990	Box 1: 5
Timeline of Arnold Trehub's life	2017	Box 1: 6

Writings	1948-2016	
Academic work	ca. 1948-1950	Box 1: 18
Academic work	ca. 1946-1951	Box 1: 19
Academic work	ca. 1946-1951	Box 1: 20
Academic work	1948	Box 1: 21
Academic work	1949	Box 1: 22
Academic work	ca. 1950	Box 1: 23
Academic work	ca. 1950	Box 1: 24
Academic work	ca. 1951-1954	Box 1: 25
Academic work	1952	Box 1: 26
Article reprints	1960-1969	Box 1: 27
Article reprints	1955-1959	Box 1: 28
Article reprints	1970-1979	Box 1: 29
Article reprints	1983	Box 1: 30

Averaging evoked cortical potentials implications of superposition, research	1963-1966	Box 1: 31
Averaging evoked cortical potentials implications of superposition, research	1963-1966	Box 1: 32
Confusion matrix for hand-printed alphabetic characters: testing a neuronal model, manuscript	1985	Box 1: 7
Confusion matrix for hand-printed alphabetic characters: testing a neuronal model, research	1986-87	Box 1: 8
Confusion matrix for hand-printed alphabetic characters: testing a neuronal model, manuscript	1985	Box 1: 9
Cognitive brain: acknowledgments	undated	Box 1: 33
Cognitive brain: bibliography	undated	Box 1: 34
Cognitive brain: bibliography	undated	Box 1: 35
Cognitive brain: bibliography	undated	Box 1: 36
Cognitive brain: bibliography, indexing	undated	Box 1: 37
Cognitive brain: proposed cover art	1991	Box 1: 38
Cognitive Brain: digital files <i>Contents:</i> Working files on 5 1/4" floppy discs.	1991	Box 6
Cognitive brain: hard copy	1991	Box 1: 40
Cognitive brain: chapter 1, manuscript	1987-Oct.	Box 1: 41
Cognitive brain: chapter 1, manuscript	1987-Oct.	Box 1: 42
Cognitive brain: chapter 1, manuscript	undated	Box 1: 43
Cognitive brain: chapter 1, manuscript	1987-Oct.	Box 1: 44
Cognitive brain: chapter 1, indexing	undated	Box 1: 45
Cognitive brain: chapter 2, manuscript	undated	Box 1: 46
Cognitive brain: chapter 2, manuscript	1987-Dec.	Box 1: 47
Cognitive brain: chapter 2, indexing	undated	Box 1: 48
Cognitive brain: chapter 3, manuscript	undated	Box 2: 1
Cognitive brain: chapter 3, manuscript	1988	Box 2: 2
Cognitive brain: chapter 3, indexing	undated	Box 2: 3
Cognitive brain: chapter 3, research	1984-Aug.	Box 2: 4
Cognitive brain: chapter 4, manuscript	1988	Box 2: 4
Cognitive brain: chapter 4, manuscript	1988	Box 2: 5
Cognitive brain: chapter 4, manuscript	undated	Box 2: 6
Cognitive brain: chapter 4, indexing	undated	Box 2: 7
Cognitive brain: chapter 5, manuscript	undated	Box 2: 8
Cognitive brain: chapter 5, manuscript	undated	Box 2: 9
Cognitive brain: chapter 5, indexing	undated	Box 2: 10
Cognitive brain: chapter 6, indexing	undated	Box 2: 11
Cognitive brain: chapter 6, manuscript	undated	Box 2: 12
Cognitive brain: chapter 6, manuscript	undated	Box 2: 13
Cognitive brain: chapter 6, manuscript	undated	Box 2: 14
Cognitive brain: chapter 6, research	1984-Oct.	Box 2: 15
Cognitive brain: chapter 7, indexing	undated	Box 2: 16
Cognitive brain: chapter 7, manuscript	undated	Box 2: 17
Cognitive brain: chapter 7, manuscript	undated	Box 2: 18
Cognitive brain: chapter 8, figures	undated	Box 2: 19
Cognitive brain: chapter 8, indexing	undated	Box 2: 20
Cognitive brain: chapter 8, manuscript	undated	Box 2: 21
Cognitive brain: chapter 8, manuscript	undated	Box 2: 22
Cognitive brain: chapter 8, manuscript	undated	Box 2: 23
Cognitive brain: chapter 9, indexing	undated	Box 2: 24
Cognitive brain: chapter 9, manuscript	undated	Box 2: 25
Cognitive brain: chapter 9, manuscript	undated	Box 2: 26
Cognitive brain: chapter 10, figures	undated	Box 2: 27
Cognitive brain: chapter 10, indexing	undated	Box 2: 28
Cognitive brain: chapter 10, manuscript	undated	Box 2: 29
Cognitive brain: chapter 10, manuscript	undated	Box 2: 30
Cognitive brain: chapter 11, indexing	undated	Box 2: 31

Cognitive brain: chapter 11, manuscript	undated	Box 2: 32
Cognitive brain: chapter 11, manuscript	undated	Box 2: 33
Cognitive brain: chapter 12, indexing	undated	Box 2: 34
Cognitive brain: chapter 12, manuscript	undated	Box 2: 34
Cognitive brain: chapter 12, manuscript	undated	Box 2: 35
Cognitive brain: chapter 12, research	undated	Box 2: 37
Cognitive brain: chapter 13, indexing	undated	Box 2: 38
Cognitive brain: chapter 13, manuscript	undated	Box 2: 39
Cognitive brain: chapter 13, manuscript	undated	Box 2: 40
Cognitive brain: chapter 13, research	1989-Aug.	Box 2: 41
Cognitive brain: chapter 14, indexing	undated	Box 2: 42
Cognitive brain: chapter 14, manuscript	undated	Box 2: 43
Cognitive brain: chapter 14, manuscript	undated	Box 2: 44
Cognitive brain: chapter 14, manuscript	undated	Box 2: 45
Cognitive brain: chapter 15, figures	undated	Box 3: 1
Cognitive brain: chapter 15, indexing	undated	Box 3: 2
Cognitive brain: chapter 15, manuscript	undated	Box 3: 3
Cognitive brain: chapter 15, manuscript	undated	Box 3: 4
Cognitive brain: chapter 16, indexing	undated	Box 3: 5
Cognitive brain: chapter 16, manuscript	undated	Box 3: 6
Cognitive brain: chapter 16, manuscript	undated	Box 3: 7
Cognitive brain: chapter 16, manuscript	undated	Box 3: 8
Cognitive brain: chapter 16, manuscript	undated	Box 3: 9
Cognitive brain: index	undated	Box 3: 10
Cognitive brain: correspondence	ca. 1990	Box 3: 11
Cognitive brain: figures	undated	Box 3: 12
Cognitive brain: figures	undated	Box 3: 13
Cognitive brain: figures	undated	Box 3: 14
Cognitive brain: figures	undated	Box 3: 15
Cognitive brain: figures	undated	Box 3: 16
Cognitive brain: figures	undated	Box 3: 17
Cognitive brain: figures	undated	Box 3: 18
Cognitive brain: figure creation	undated	Box 3: 19
Cognitive brain: figures, final	undated	Box 3: 20
Cognitive brain: figures, first draft	undated	Box 3: 21
Cognitive brain: figures, original	undated	Box 3: 22
Cognitive brain: figures on cardstock, chapters 1-9	undated	Box 3: 23
Cognitive brain: figures on cardstock, chapters 9-16, tables on cardstock	undated	Box 3: 24
Cognitive brain: figures on cardstock	undated	Box 3: 25
Cognitive brain: front matter	undated	Box 3: 26
Cognitive brain: press release	1991	Box 3: 27
Cognitive brain: research	ca. 1982	Box 3: 28
Cognitive brain: research	ca. 1988	Box 3: 29
Cognitive brain: research	ca. 1992	Box 3: 30
Cognitive brain: research	undated	Box 3: 31
Cognitive brain: research	undated	Box 3: 32
Cognitive brain: reviews	1991-1993	Box 3: 33
Cognitive brain: unidentified figures	undated	Box 3: 34
Episodic learning and temporal routing of memory, manuscript and research	1972	Box 3: 35
Estimation of stimulus intensity-evoked potential functions in the brain, manuscript	ca. 1972	Box 3: 36
Measurement of distributed stochastic processes in the brain, manuscripts	1971	Box 3: 37
Measurement of distributed stochastic processes in the brain, correspondence	1971	Box 3: 38
Measurement of distributed stochastic processes in the brain, research	1971	Box 3: 39

Model for parsing, learning and recognizing objects in a complex environment, manuscript	undated	Box 1: 10
Model for parsing, learning and recognizing objects in a complex environment, manuscript	1987	Box 1: 11
Model for parsing, learning and recognizing objects in a complex environment, manuscript and research	1987-88	Box 1: 12
Neuronal models for cognitive processes, research	undated	Box 3: 40
Pendulum illusion in anorthoscopic perception, manuscript and correspondence	1985	Box 1: 13
Pendulum illusion in anorthoscopic perception, manuscript and correspondence	1985	Box 1: 14
Quantitative analyses of behavior, correspondence	1985-1986	Box 3: 41
Seeing-more-than-is-there: a probe of retinoid networks, manuscripts	undated	Box 4: 1
Seeing-more-than-is-there: a probe of retinoid networks, manuscript and research	undated	Box 4: 2
Seeing-more-than-is-there: a probe of retinoid networks, correspondence	1985-1987	Box 4: 3
Seeing-more-than-is-there: a probe of retinoid networks, correspondence	1987-1988	Box 4: 4
Seeing-more-than-is-there: a probe of retinoid networks, research	ca. 1980	Box 4: 5
Seeing-more-than-is-there: a probe of retinoid networks, research	1983	Box 4: 6
Seeing-more-than-is-there: a probe of retinoid networks, research	1983	Box 4: 7
Seeing-more-than-is-there: a probe of retinoid networks, research	1984	Box 4: 8
Seeing-more-than-is-there: a probe of retinoid networks, research	1984	Box 4: 9
Seeing-more-than-is-there: a probe of retinoid networks, research	1984	Box 4: 10
Seeing-more-than-is-there: a probe of retinoid networks, research	1984	Box 4: 11
Signal-to-noise ratios and inter-station coupling in rat brain, manuscript and research	1967	Box 4: 12
Space, self, and the theater of consciousness, manuscripts	2006	Box 4: 13
Space, self, and the theater of consciousness, manuscripts	undated	Box 4: 14
Space, self, and the theater of consciousness, correspondence	2006	Box 4: 14
Sparse coding of faces in a neuronal model: interpreting cell population response in object recognition, manuscripts	1997	Box 4: 15
Sparse coding of faces in a neuronal model: interpreting cell population response in object recognition, manuscripts	1997	Box 4: 16
Sparse coding of faces in a neuronal model: interpreting cell population response in object recognition, manuscript and correspondence	1992-1993	Box 4: 17
Central vision mechanism, J.M. Harrison, manuscript	1952	Box 4: 18
Science of consciousness: where it is and where it should be, manuscript and correspondence	2006	Box 4: 19
Core self endures as the reflective self changes, manuscript	2008	Box 4: 20
Synaptic matrix: pattern processing in the brain, manuscript	1970-Dec.	Box 4: 21
Theories and models of consciousness in neuroscience, manuscripts	2008	Box 4: 22

Theory of sensory interaction, an experimental investigation of the relationship between autonomic activity and visual sensitivity, dissertation	1954	Box 1: 15
Theory of sensory interaction, an experimental investigation of the relationship between autonomic activity and visual sensitivity, dissertation and research	1954	Box 1: 16
Theory of sensory interaction, an experimental investigation of the relationship between autonomic activity and visual sensitivity, correspondence	1958-Jan	Box 1: 17
Triangle completion, research	undated	Box 4: 23
Two arguments for a pre-reflective core self: commentary on Praetorius, manuscript and reviewer notes	2008	Box 4: 24
Unidentified research data	1981	Box 4: 25
Unidentified Research Data	1981	Box 4: 26
Unidentified research data	undated	Box 4: 27
Unidentified research data	undated	Box 4: 28
Unidentified research data	undated	Box 4: 29
Unidentified research data	1954	Box 4: 30
Unidentified research data	1976	Box 4: 31
Unidentified research data	undated	Box 4: 32
Vision, brain, and cooperative computations, correspondence	1984-1985	Box 4: 33
Visual field anomaly in schizophrenia, manuscript	undated	Box 4: 34
Where am I? Redux, comments from reviewers	2011	Box 4: 35
Where am I? Redux, manuscripts	2011	Box 4: 36

Professional activities

1959-2005

Article review	2005	Box 5: 1
Conference materials	1990-Jul.	Box 5: 2
Correspondence	1965-1966	Box 5: 3
Correspondence	1966-1967	Box 5: 4
Correspondence	1968-1969	Box 5: 5
Correspondence	1968-1970	Box 5: 6
Correspondence	1971-1972	Box 5: 7
Correspondence	1973-1974	Box 5: 8
Correspondence	1975	Box 5: 9
Correspondence	1976-1977	Box 5: 10
Correspondence	1978-1979	Box 5: 11
Correspondence	1980-1984	Box 5: 12
Correspondence	1984-1985	Box 5: 13
Correspondence	1984-1988	Box 5: 14
Correspondence	1990-1998	Box 5: 15
Correspondence	1991	Box 5: 16
Correspondence	2001	Box 5: 17
Correspondence, printed email	ca. 1998-2016	Box 5: 18
Judith Kroll Papers	ca. 1983	Box 5: 19
MacArthur Fellow nomination, David Somers	2005	Box 5: 20
National Science Foundation, reviewer questionnaire	1986	Box 5: 21
Online engagement	2007	Box 5: 22
Personnel	1966	Box 5: 23
Personnel	1970,1976	Box 5: 24
Personnel	1978	Box 5: 25
Personnel	1981	Box 5: 26
Personnel	1981	Box 5: 27
Personnel	1982	Box 5: 28
Personnel, UMass	1979-2016	Box 5: 29
Request for designated research funds	1972-1977	Box 5: 30
Schier, Elizabeth: comments on articles	2008	Box 5: 31

Textbook advertisements	1991-1995	Box 5: 32
Thesis committees	1959-1979	Box 5: 33
Who's who?	1985-1986	Box 5: 34

Technology

ca.1979-2008

Apple II plus

ca.1979

[Contents](#): Includes an off-market monitor and a single, 5 1/2" floppy drive.

Apple Lisa 2

ca.1984

[Contents](#): Includes original keyboard and mouse.

MacBook Pro

ca.2008

Administrative information

Access

The collection is open for research.

Provenance

Gift of Aaron Trehub.

Processing Information

Processed by Theresa Dooley, March 2018.

Language:

English

Copyright and Use [\(More information](#))

Cite as: Arnold Trehub Papers (FS 187). Special Collections and University Archives, University of Massachusetts Amherst Libraries.

Search terms

Subjects

- Brain--Computer simulation
- Cognitive science
- University of Massachusetts Amherst--Faculty
- University of Massachusetts Amherst . Department of Psychology

Contributors

- Trehub, Arnold **[main entry]**