
Finding Aid to the John Verhoogen Papers, 1935-1985

Finding Aid written by Teresa Mora

The Bancroft Library

University of California, Berkeley

Berkeley, California, 94720-6000

Phone: (510) 642-6481

Fax: (510) 642-7589

Email: bancref@library.berkeley.edu

URL: <http://bancroft.berkeley.edu/>

© 2007

The Regents of the University of California. All rights reserved.

Finding Aid to the John Verhoogen Papers, 1935-1985

Collection Number: BANC MSS 91/142 c

The Bancroft Library

University of California, Berkeley
Berkeley, California

Finding Aid Written By:

Teresa Mora

Date Completed:

February 2007

© 2007 The Regents of the University of California. All rights reserved.

Collection Summary

Collection Title: John Verhoogen papers

Date (inclusive): 1935-1985

Collection Number: BANC MSS 91/142 c

Creators : Verhoogen, John, 1912-

Extent: Number of containers: 7 cartons Linear feet: 8.75

Repository: The Bancroft Library

University of California, Berkeley

Berkeley, California, 94720-6000

Phone: (510) 642-6481

Fax: (510) 642-7589

Email: bancref@library.berkeley.edu

URL: <http://bancroft.berkeley.edu/>

Abstract: The John Verhoogen Papers, 1935-1985, document Verhoogen's four decade long career as a geophysicist. The papers are arranged into five series: Correspondence, Writings, Professional Activities, University of California, and Research Files. Verhoogen's prominence in the field and respect amongst his colleagues are especially well evidenced in the collection in the form of correspondence, documentation of his professional activities, writings, and lectures.

Languages Represented: Collection materials are in English and French

Physical Location: Many of the Bancroft Library collections are stored offsite and advance notice may be required for use. For current information on the location of these materials, please consult the Library's online catalog.

Access

Collection is open for research.

Publication Rights

Copyright has been assigned to The Bancroft Library. Materials in these collections are protected by the U.S. Copyright Law (Title 17, U.S.C.) and may not be used without permission of The Bancroft Library. Use may be restricted by terms of University of California gift or purchase agreements, privacy and publicity rights, licensing terms, and trademarks. All requests to reproduce, publish, quote from, or otherwise use collection materials must be submitted in writing to the Head of Public Services, The Bancroft Library, University of California, Berkeley 94720-6000. See:

<http://bancroft.berkeley.edu/reference/permissions.html> .

Restrictions also apply to digital representations of the original materials. Use of digital files is restricted to research and educational purposes.

Preferred Citation

[Identification of item], John Verhoogen Papers, BANC MSS 91/142 c, The Bancroft Library, University of California, Berkeley.

Alternate Forms Available

There are no alternate forms of this collection.

Indexing Terms

The following terms have been used to index the description of this collection in the library's online public access catalog.

Verhoogen, John, 1912-

University of California, Berkeley. Dept. of Geology and Geophysics

Geology

Rocks, Igneous

Rocks, Crystalline and metamorphic

Volcanoes--Washington (State)

Geology--Washington (State)

Saint Helens, Mount (Wash.)

Cascade Range

Faculty papers.

Acquisition Information

The John Verhoogen Papers were given to The Bancroft Library by John Verhoogen in December 1990.

Accruals

No additions are expected.

System of Arrangement

Arranged to the folder level.

Processing Information

Processed by Teresa Mora in 2007.

Biographical Information

John Verhoogen was born in Brussels, Belgium in 1912. He obtained degrees in mining engineering and engineering geology in Europe and went on to earn his Ph.D. in geology in 1936 at Stanford University. He returned to Brussels from 1936-1939 and left in 1940 to undertake research in the Belgian Congo, making geophysical observations of the active volcano Nyamuragira. In 1947 he joined the faculty of the Department of Geological Sciences (now Geography and Geophysics) at UC Berkeley where he remained until his retirement in 1976. Verhoogen was the recipient of numerous honors in his field. He was a fellow of the Royal Astronomical Society, the American Geophysical Union, the Geological Society of America, and the American Academy of Arts and Sciences. In 1978 he received the Arthur L. Day Prize and Lectureship from the National Academy of Sciences for his work on the thermodynamics of the Earth's core and mantle and contributions to scholarship in the Earth sciences. Other awards included two Guggenheim Fellowships, the Day Medal of the Geological Society of America (in 1958), and the Dumont Medal of the Geological Society of Belgium. Verhoogen served actively on a number of national and international advisory panels and editorial boards. From 1951 to 1954 he was vice-president of the International Association of Volcanology and Chemistry of the Earth's Interior. Verhoogen died in 1993.

Scope and Content of Collection

The John Verhoogen Papers, 1935-1985, document Verhoogen's four decade long career as a geophysicist. The papers are arranged into five series: Correspondence, Writings, Professional Activities, University of California, and Research Files. Verhoogen's prominence in the field and respect amongst his colleagues are especially well evidenced in the collection in the form of correspondence, documentation of his professional activities, writings, and lectures.

Series 1 **Correspondence 1946-1983**

Physical Description: Carton 1, Carton 2, folders 1-29

Arrangement

Arranged hierarchically.

Scope and Content Note

General correspondence is organized chronologically by year, correspondence with individuals follows in alphabetical order. Much of the series consists of correspondence with colleagues throughout the world. Also includes correspondence with graduate students Verhoogen advised.

Carton 1, Folder
1-26

General 1946-1968

Carton 1, Folder 27	Anderson, Orson L. and Leon Thomsen 1965-1969
Carton 1, Folder 28	Bowers, Robert A. 1956-1959
Carton 1, Folder 29	Campbell, Dave circa 1968
Carton 1, Folder 30-31	Currie, Robert G. 1981-1983
Carton 2, Folder 1-2	Dickman, S.R. 1977-1978
Carton 2, Folder 3	Edwards, Bob 1974
Carton 2, Folder 4-5	Edwards, Bob- Von Zeipel's Theorem 1976-1977
Carton 2, Folder 6	Fukutomi, Takaharu 1958
Carton 2, Folder 7	Fyfe, William S. 1951-1956, 1978
Carton 2, Folder 8	Glen, Bill 1979-1980
Carton 2, Folder 9	Jones, Glynn 1974-1976
Carton 2, Folder 10	Kawai, Naoto 1963-1967
Carton 2, Folder 11	Koizumi, Mitsue 1954-1955
Carton 2, Folder 12	Korzhinskii, D.S. 1963
Carton 2, Folder 13	Loper, David 1979-1981
Carton 2, Folder 14	Lubimova, E.H. 1957-1958, 1963
Carton 2, Folder 15	Marsh, Bruce 1975
Carton 2, Folder 16	Matsumoto, Takashi 1963
Carton 2, Folder 17	Matsuo, S. 1959
Carton 2, Folder 18	Miyashiro, Akiko 1954
Carton 2, Folder 19	Möler, Gregory- Vinland Map 1981
Carton 2, Folder 20	Nishitake, Teruo 1958
Carton 2, Folder 21	Peterson, Dr. N. 1967
Carton 2, Folder 22	Rikitake, Tsuneji 1955
Carton 2, Folder 23	Ringwood, Dr. A.E. 1957-1958
Carton 2, Folder 24	Sakuma, Shuzo 1954
Carton 2, Folder 25	Shimazu, Yasuo 1955-1963
Carton 2, Folder 26	Sudo, Toshio 1956
Carton 2, Folder 27	Suwa, Akira 1954
Carton 2, Folder 28	Tazieff, Haroun 1948, 1953
Carton 2, Folder 29	Volcanoes 1958-1960

Series 2 **Writings 1935-1987**

Physical Description: Carton 2, folders 30-51, Carton 3 folders 1-18

Arrangement

Arranged alphabetically.

Scope and Content Note

Includes drafts of and correspondence regarding articles, essays, and lectures authored by Verhoogen.

Carton 2, Folder 30	The Chemical Potential of the Components of a Solid Phase 1949
Carton 2, Folder 31-32	Contribution a la Thermodynamique des Magmas et Theses Annexes 1947
Carton 2, Folder 33	Damping of the Chandler Wobble and Viscosity of the Earth's Core 1974
Carton 2, Folder 34	The Earth: An Introduction to Physical Geology- publication 1966-1980
Carton 2, Folder 35	The Earth's Heat: Wherefrom? 1981-1982
Carton 2, Folder 36	Efficiency of Terrestrial Dynamos 1976
Carton 2, Folder 37	Electrical Resistivity of Meteorites 1956
Carton 2, Folder 38	Encyclopedia Britannica- Volcano article 1955
Carton 2, Folder 39	Energetics of the Earth- typescript undated
Carton 2, Folder 40	Faculty Research Lecture- Revolutions in the Earth 1976
Carton 2, Folder 41	Geomagnetism and the Core of the Earth- typescript undated
Carton 2, Folder 42	Geophysical Aspects of Continental Drift 1950
Carton 2, Folder 43	Heat Balance of the Earth's Core circa 1960
Carton 2, Folder 44	Igenous and Metamorphic Activity in Relation to Orogeny 1948-1952
Carton 2, Folder 45	Igenous Petrology- publication 1961-1980
Carton 2, Folder 46	Introduction á la Geologie undated
Carton 2, Folder 47	Ionic Diffusion and Electrical Conductivity in Quartz 1951-1952
Carton 2, Folder 48	Korzhinsky Symposium 1958-1960
Carton 2, Folder 49	Lecture- Applied Mechanics Conference 1965
Carton 2, Folder 50	Lecture- Earth's Interior 1959
Carton 2, Folder 51	Lecture- Geophysics Conference 1956
Carton 2, Folder 52	Lecture- The Primitive Earth 1973
Carton 3, Folder 1	Lectures- Miscellaneous 1954-1973
Carton 3, Folder 2	Magnetic Properties of Rocks 1966-1968
Carton 3, Folder 3	Mechanics of Ash Formation 1950-1951
Carton 3, Folder 4	Mount St. Helens- A Recent Cascade Volcano circa 1937
Carton 3, Folder 5	Natural Variations in the Isotopic Composition of Silicon 1951-1952

Carton 3, Folder 6	North American Paleomagnetism and Geology- Geological Society of America Centennial Special Volume 1984-1985
Carton 3, Folder 7	Paleoheat Flow 1968
Carton 3, Folder 8	Perry Byerly Memorial 1978-1981
Carton 3, Folder 9	Personal Notes and Sundry Comments- <i>Annual Review of Earth and Planetary Sciences</i> 1981-1983
Carton 3, Folder 10	Phase Changes and Convection in the Earth's Mantle 1964-1965
Carton 3, Folder 11	Physical Properties and Bond Type in Magnesium-Aluminum Oxides and Silicates 1957
Carton 3, Folder 12	Sigma Xi Lecture 1960-1961
Carton 3, Folder 13	The Source Rock of Lead Ores and the Age of the Granite Layer 1948-1949
Carton 3, Folder 14	Stressed Bodies 1948-1951
Carton 3, Folder 15	The Temperature at the Boundary of the Earth's Core 1950-1951
Carton 3, Folder 16	Temperatures Within the Earth 1954-1955
Carton 3, Folder 17	Various, in French 1939-1940
Carton 3, Folder 18	Von Zeipel's Theorem and Convection in the Earth 1947-1948

Series 3 **Professional Activities 1947-1980**

Physical Description: Carton 3, folders 19-31, Carton 4, folders 1-32

Arrangement

Arranged alphabetically.

Scope and Content Note

Includes materials documenting Verhoogen's professional work outside of the University, including consultant work and Verhoogen's involvement in professional organizations.

Carton 3, Folder 19	American Geological Institute- Visiting Geoscientist Program 1958-1959
Carton 3, Folder 20	American Geophysical Union- Committee on the John A. Fleming Award 1968-1972
Carton 3, Folder 21-22	American Geophysical Union- Section of Volcanology, Geochemistry and Petrology 1964-1968
Carton 3, Folder 23	American Geophysical Union- Visiting Scientist Program 1965-1966
Carton 3, Folder 24	Bechtel 1963
Carton 3, Folder 25	Conference on Anomalous Magnetization 1954
Carton 3, Folder 26	Conference on Theoretical Geophysics 1956
Carton 3, Folder 27	Consulting Work 1949-1962
Carton 3, Folder 28-29	Geochimica et Cosmochimica Acta 1955-1963
Carton 3, Folder 30	Geological Society of America- National Medal of Science Sub-Committee 1971-1973
Carton 3, Folder 31	Geophysics Research Board 1966-1969
Carton 4, Folder 1	Gordon Research Conference on High Pressure Research 1963-1964
Carton 4, Folder 2	Graduate Research Center of the Southwest 1961-1964
Carton 4, Folder 3	Institute of Geophysics 1954

Carton 4, Folder 4	Institute of Geophysics Conference 1948
Carton 4, Folder 5	Institute of Geophysics and Planetary Studies- Technical Conference 1969
Carton 4, Folder 6	International Association of Volcanology 1960-1968
Carton 4, Folder 7-8	International Union of Geodesy and Geophysics- General Assembly 1967
Carton 4, Folder 9	International Union of Geodesy and Geophysics- General Assembly Local Arrangements 1961-1963
Carton 4, Folder 10	International Union of Geodesy and Geophysics- Quadrennial Report 1966-1967
Carton 4, Folder 11	Journal of Geomagnetism and Geoelectricity 1971
Carton 4, Folder 12	McGraw-Hill- Editorship 1963, 1965-1966
Carton 4, Folder 13	National Academy of Sciences 1967
Carton 4, Folder 14	National Academy of Sciences- Arthur L. Day Prize and Lectureship 1977-1980
Carton 4, Folder 15	National Academy of Sciences- Report Review Committee 1970-1976
Carton 4, Folder 16	National Academy of Sciences- Section of Geophysics 1973
Carton 4, Folder 17-18	National Academy of Sciences- Upper Mantle Committee 1966-1971
Carton 4, Folder 19	National Research Council- Division of Earth Sciences 1965-1967
Carton 4, Folder 20	National Science Foundation- Magnetic Conference 1954
Carton 4, Folder 21	Pahlavi Lecture 1978
Carton 4, Folder 22	Physics Problems 1963
Carton 4, Folder 23	Sigma Xi- National Lectureship Program 1959-1960
Carton 4, Folder 24	Sigma Xi- Nominations 1951
Carton 4, Folder 25	United States Committee for the Study of Paricutin Volcano 1947
Carton 4, Folder 26	United States Geological Survey- Contract Research 1957-1960
Carton 4, Folder 27	United States Geological Survey- National Center for Earthquake Research Advisory Panel 1965-1972
Carton 4, Folder 28-29	United States- Japan Seminar on Paleomagnetism 1964-1965
Carton 4, Folder 30	United States- Japan Seminar on Paleomagnetism 1969-1970
Carton 4, Folder 31	University Extension 1948-1956
Carton 4, Folder 32	Upper Mantle Working Group on Petrology and Volcanism 1964-1968

Series 4 Course Materials 1957-1978

Physical Description: Carton 4, folders 33-36, Carton 5, Carton 6, folders 1-6

Arrangement

Arranged alphabetically by course name or topic.

Scope and Content Note

Primarily consists of lecture notes. May also include master copies of exams and assignments. Although course numbers are usually identified the topic studied in a particular semester was not always listed in the General Catalog and therefore not always readily evident. Files on particular courses often span numerous academic years.

Carton 4, Folder 33
Carton 4, Folder 34-36
Carton 5, Folder 1-4
Carton 5, Folder 5-10
Carton 5, Folder 11
Carton 5, Folder 12-16
Carton 5, Folder 17-24
Carton 5, Folder 25
Carton 6, Folder 1
Carton 6, Folder 2
Carton 6, Folder 3
Carton 6, Folder 4
Carton 6, Folder 5-6

Geology 15 1960-1962

Geology 108 1967, 1969, 1971

Geophysics 122A 1965-1967, 1975, undated

Geophysics 122B circa 1958-1960, 1962-1978

Geology 151 1975-1977

Geophysics 208 1957-1968, undated

Geology 219 1958, 1962, 1969-1971, 1973, 1974

Geophysics 240 1976

Rock Magnetism 1964

Rotating Fluids 1972

Rotation of the Earth 1971

Seminar in Geomagnetism 1960

Unidentified 1975-1976

Series 5 University of California, Berkeley 1952-1980

Physical Description: Carton 6, folders 7-17

Arrangement

Arranged alphabetically.

Scope and Content Note

Documents Verhoogen's University committee work outside of the Geology Department.

Carton 6, Folder 7
Carton 6, Folder 8
Carton 6, Folder 9
Carton 6, Folder 10
Carton 6, Folder 11
Carton 6, Folder 12
Carton 6, Folder 13
Carton 6, Folder 14
Carton 6, Folder 15
Carton 6, Folder 16

Atmospheric and Space Sciences Committee 1962-1971

Budget Committee 1958

College of Letters and Science- Executive Committee 1962-1963

Committee of the College of Letters and Science on Objectives, Requirements, Programs 1955-1957

Committee on Privilege and Tenure 1956-1957

Institute of Geophysics- Advisory Board 1952-1953

Physical Sciences Council 1966

Radio Astronomy Advisory Committee 1970-1972

Seismographic Station 1978-1979

Space Science Committee 1958

Carton 6, Folder
17

Taskforce on Future Needs 1979

Series 6 **Research 1935-1980**

Physical Description: Carton 6, folders 18-30, Carton 7

Arrangement

Arranged chronologically.

Scope and Content Note

Includes notes on various topics of interest as well as notes on the work of others. Much is unidentified and to gain a full understanding of Verhoogen's academic work one should look at the series as a whole. The series also includes applications for various research grants.

Carton 6, Folder
18

Miscellaneous Notes 1935-1937

Carton 6, Folder
19

Viscosité circa 1937

Carton 6, Folder
20-22

Notes 1938

Carton 6, Folder
23

Nyamuragira circa 1938

Carton 6, Folder
24

Notes 1939

Carton 6, Folder
25

Miscellaneous Notes circa 1940s

Carton 6, Folder
26

Notebooks 1940

Carton 6, Folder
27

Notes circa 1940

Carton 6, Folder
28-29

Notebooks circa 1940

Carton 6, Folder
30

Belgian Congo 1944-1945

Carton 6, Folder
31

Notebooks 1945

Carton 7, Folder 1

Paricutin Report 1945-1947

Carton 7, Folder 2

Field and Laboratory Studies of Electrical Properties of Rocks- Grant 1948

Carton 7, Folder 3

Magnetization of Sediments- Grant 1948-1955

Carton 7, Folder 4

Thermodynamics of Solids- Grant 1949

Carton 7, Folder 5

Miscellaneous Notes circa 1950s

Carton 7, Folder 6

Institute of Geophysics Grant 1952

Carton 7, Folder 7

National Science Foundation 1952

Carton 7, Folder 8

National Science Foundation Grant- Physical Properties of Magnesium and Aluminum 1954-1958

Carton 7, Folder 9

Hydromagnetic Dynamo Theory 1956

Carton 7, Folder 10

Adirondack Measurements 1958

Carton 7, Folder 11

On Hydromagnetic Equilibrium 1958

Carton 7, Folder 12

A Theorem on Force-Free Magnetic Fields 1958

Carton 7, Folder 13

National Science Foundation Grant- Crystal Chemistry and Magnetic Properties of Fe-Ti Oxide Minerals 1958-1963

Carton 7, Folder 14

Deformation During the Carboniferous and Permian Periods circa 1960s

Carton 7, Folder 15

Chemical and Genetic Relationships Among Meteorites- Critique 1961

Carton 7, Folder 16

National Science Foundation Grant- Paleomagnetism of Cretaceous Intrusives 1963-1968

Carton 7, Folder 17	National Science Foundation Grant- Research on Paleomagnetism 1965-1968
Carton 7, Folder 18	Braginsky, S.I. 1965-1975
Carton 7, Folder 19	Free Hydromagnetic Oscillations of the Earth's Core and the Theory of the Geomagnetic Secular Variation 1966
Carton 7, Folder 20	The Secular Variation of the Earth's Magnetic Field 1966
Carton 7, Folder 21	Hydromagnetic Planetary Waves 1967
Carton 7, Folder 22	National Science Foundation- The Earth's Core 1967-1974
Carton 7, Folder 23	National Science Foundation- Magnetic Mineralogy of Igneous Rocks 1968-1971
Carton 7, Folder 24	Zur Dynamotheorie Stellarer und Planetarer Magnetfelder 1969
Carton 7, Folder 25	Zur Hydrodynamik des Mittleren Geschwindigkeitsfeldes in Einem Turbulenten Medium 1969
Carton 7, Folder 26	Motions within the Earth's Core 1970
Carton 7, Folder 27	Turbulent Dynamo Action at Low Magnetic Reynolds Number 1970
Carton 7, Folder 28	Effectiveness of Cyclonic Convection for Producing the Geomagnetic Field 1971
Carton 7, Folder 29	Hydromagnetic Convection in a Rapidly Rotating Fluid Layer 1972
Carton 7, Folder 30	Kinematic Reversal Schemes for the Geomagnetic Dipole 1972
Carton 7, Folder 31	A Kinematic Theory of Large Magnetic Reynolds Number Dynamos 1972
Carton 7, Folder 32	National Science Foundation Grant- The Earth's Core 1974-1979
Carton 7, Folder 33	Turbulent Thermal Convection in the Presence of Rotation and a Magnetic Field 1979
Carton 7, Folder 34	The Macrodynamics of α-Effect Dynamos in Rotating Fluids 1975
Carton 7, Folder 35	A Necessary Condition for the Geodynamo 1975
Carton 7, Folder 36	Generation of Planetary Magnetic Fields 1976
Carton 7, Folder 37	Gravitational Energy 1978-1980
Carton 7, Folder 38	A Brief Review of Magnetostriction Theory undated
Carton 7, Folder 39	Cauchy Relations undated
Carton 7, Folder 40	Interior of the Earth undated
Carton 7, Folder 41	Murnhagan Waves in Core undated
Carton 7, Folder 42	Numerical Solutions of the Kinematic Dynamo Problem undated
Carton 7, Folder 43	A Suggested General Theorem on Dynamo Symmetry undated
Carton 7, Folder 44	Thermodynamique undated
Carton 7, Folder 45	Volcanic Heat undated

Carton 7, Folder
46-55

Miscellaneous Notes undated