

## Proceedings of the Fifty-eighth Annual Meeting of the Mineralogical Society of America in Seattle, Washington

LARRY W. FINGER, SECRETARY

The fifty-eighth annual meeting of the Society was held on November 6-9, 1977, in Seattle, Washington. There were five sessions in petrology, two in mineralogy, and a symposium, "Spectroscopy of Rock-Forming Minerals," arranged by Donald R. Peacor. The sessions were integrated with those of the Geological Society of America and its other affiliated societies.

The retiring president, F. Donald Bloss, addressed the Society on November 8 on the subject, "The Spindle Stage: A Turning Point for Optical Crystallography."<sup>1</sup> The annual luncheon of the Society followed the address of President Bloss. The Roebling Medal was awarded to Professor Raimond Castaing, who was introduced by Klaus Keil. The Mineralogical Society of America Award was given to J. G. Liou, who was introduced by W. Gary Ernst.

At the annual business meeting, reports were presented by the Secretary, the Treasurer, and the Editor. The results of the election and Council actions were announced.

### 1977 Council Actions

The second meeting of the 1977 Council was held on May 28, 1977, and the third meeting was held on November 6, 1977. The principal actions of the 1977 Council are as follows:

#### Awards

The Council voted to award the Roebling Medal for 1978 to James B. Thompson, Jr. The Mineralogical Society of America Award for 1978 will be given to J. Stephen Huebner.

#### Nominations of Officers for 1979

The following slate of elective officers for 1979, based on recommendations from the Nominating Committee for Officers (Philip M. Orville, Chairman)

was chosen by the Council and will appear on the ballot in 1978:

*President:* David R. Wones, Virginia Polytechnic Institute and State University  
*Vice President:* W. Gary Ernst, University of California at Los Angeles  
*Secretary:* Not on the 1979 ballot  
*Treasurer:* Malcolm Ross, U. S. Geological Survey  
*Councillors:* (1979-1981) Two to be elected  
Richard A. Yund, Brown University  
Daniel F. Weill, University of Oregon  
H. Catherine Skinner, Yale University  
George Fisher, Johns Hopkins University

#### Fellowship

The Council elected members to Fellowship, based on the recommendations of the Nominating Committee for Fellows (Howard Day, Chairman). The new fellows are:

Robert Berner	J. G. Liou
Philippa Black	Robert McCallister
Tomas Feininger	Henry Meyer
Lawrence Grossman	Friedrich Seifert
John Grover	Ronald Sorem
H. G. Huckenholz	Kenneth Towe
Claude Levy	Richard Yund

#### Journal of Petrology Honorary Board of Editors

James B. Thompson, Jr., was appointed by MSA to this board for a term beginning in 1978. David R. Wones has been appointed to a term to begin in 1979.

#### Publications

Paul Ribbe has been appointed to a new position as Managing Editor of the Short Course notes for a term of three years. Council also authorized the dedication of a regular issue of *The American Mineral-*

<sup>1</sup> *Am. Mineral.*, 63, 433-447.

ogist as a Festschrift to Professors Frondel and Hurlbut. Paul B. Moore and David B. Stewart are to organize this issue.

*Kraus Fund Award*

The Council voted to present the Kraus Fund Award for 1977 to Louise Levien, State University of New York at Stony Brook.

**Actions of the 1978 Council**

The first meeting of the 1978 Council was held on November 9, 1978.

The Council approved the budgets for the Society and *Mineralogical Abstracts*, and reappointed Brian Mason as Editor and A. F. Spilhaus, Jr., as Executive Secretary. Kathleen Krafft was appointed Managing Editor.

*Committees*

The Council voted to abolish the Committee on Public Education and Information. The report of the Committee on Committees (P. J. Wyllie, Chairman) was approved with changes.

*Copyright*

The Council voted several changes to conform with the new copyright law. The Editor is to obtain written transfer of copyright from an author before final acceptance of a manuscript. The Society will also participate, on a trial basis, in the Copyright Clearance Center, Inc.

**Report of the Secretary for 1977**

*Results of the Election*

The results of the 1977 election are as follows:

- President:* Peter J. Wyllie (1978)
- Vice President:* David R. Wones (1978)
- Secretary:* Larry W. Finger (1978-1979)
- Councillors:* Arden Albee (1978-1980)  
Bernard Evans (1978-1980)

*Membership Statistics*

As of October 1977, there were 2373 members, divided as follows: Members, 1420; Student Members, 401; Fellows, 543; and Honorary Fellows, 9.

*Necrology*

Members that have died since the last report are listed below:

- |                  |                    |
|------------------|--------------------|
| Alfred W. Allen  | Ralph J. Holmes    |
| Ian Campbell     | Herbert O'Daniel   |
| Karl F. Chudoba  | Philip Read        |
| Richard J. Davis | Robert W. Schnabel |
| Joseph W. Greig  | Neal Yedlin        |

LARRY W. FINGER  
*Secretary*

**Report of the Treasurer for 1977**

This report covers the period January 1, 1977 through December 31, 1977, denoted FY 1977. The financial data for FY 1977 are presented in Table 1 (balance sheet) and Table 2 (statement of income and expense). The figures have been audited by Touche Ross and Company, and in their opinion present an accurate accounting of the Society's financial posi-

Table 1. Mineralogical Society of America balance sheet, FY 1977

	Dec. 31, 1976	Dec. 31, 1977
<i>Current Assets:</i>		
Cash - Checking Accounts	\$ 67,685	\$ 38,977
Cash - Savings Accounts	10,527	52,509
Investment Fund at cost **	359,810	369,829
Investments - S. Cen. Bell Bond	4,977	4,977
Investments - Goodyear Stock	10,950	10,950
Receivables - Customers	15,915	14,586
Prepaid Expense	1,298	1,754
<b>Total Assets</b>	<b>\$ 471,162</b>	<b>\$ 493,582</b>
<i>Current Liabilities:</i>		
Accounts Payable - Trade	\$ 21,595	\$ 23,481
Min. Abstr./Jnl. of Petr.	3,795	9,720
Other Payables	2,151	2,776
Prepaid Dues	26,780	27,184
Prepaid Subscriptions	51,550	53,760
<b>Total Liabilities</b>	<b>\$ 105,871</b>	<b>\$ 116,921</b>
<i>Net Worth:</i>		
General Operating Fund	\$ 54,278	\$ 67,313
Revolving Fund	4,574	3,896
Endowment Fund	284,723	284,500
Membership Assistance Fund	6,194	6,593
Kraus Crystallographic Fund	15,522*	14,359
<b>Total Equity Funds</b>	<b>\$ 365,291</b>	<b>\$ 376,661</b>
<b>Total Liabilities &amp; Capital</b>	<b>\$ 471,162</b>	<b>\$ 493,582</b>
* Includes \$1,384 transfer from Scholarship Fund		
** Investment Fund at Market	\$ 401,590	\$ 385,880

Table 2. Mineralogical Society of America statement of income and expense, FY 1977

	Dec. 31, 1976	Dec. 31, 1977
<u>SOCIETY OPERATIONS</u>		
<u>Income:</u>		
Dues - Fellows & Members	\$ 35,981	\$ 35,560
Students	2,480	2,436
Life	4,100	4,180
Prior Years	52	414
Investment Fund Income	(3,995)*	2,147
Transfer from Endowm. (½ D & I)	5,184	6,220
Savings & Short Term Investment	992	1,424
Mailing List Sales	1,018	224
Miscellaneous Income	1,621	1,094
Total Income	\$ 47,433	\$ 53,699
<u>Expense:</u>		
Indirect Administrative Costs:		
Salaries	\$ 14,745	\$ 14,100
List Maintenance	--	5,470
Telephone	319	398
Postage	2,571	2,003
Computer	2,510	1,270
Mailing Lists	390	75
Services & Supplies	2,032	2,285
Professional Services	900	1,500
Travel & Official	1,108	461
Annual & Council Meetings	2,945	2,145
Miscellaneous Expense	1,403	3,167
Sub-total	28,925	32,874
Less: Allocation on above	28,071	30,810
Balance Allocated to Memb.	\$ 854	\$ 2,064
Membership Services:		
Scientific Meetings	--	--
Dues & Contributions	3,660	3,660
Awards	667	3,368
Membership Directory	--	2,699
Total Membership Costs	\$ 5,191	\$ 11,791
Member Subscr. Costs	32,078	28,873
Total Expense	\$ 37,269	\$ 40,664
Excess of Income over Expense	\$ 10,164	\$ 13,035
<u>REVOLVING FUND</u>		
<u>Income:</u>		
Special Paper Sales	\$ 3,288	\$ 2,319
Guide Book, High Temp. Reprint	195	211
Short Course I Notes	--	2,554
Short Course II Notes	10,172	2,727
Short Course III Notes	--	5,308
Short Course IV Registration	7,480	6,397
Short Course IV Notes	--	685
Decennial Index	530	3,922
Investment Income	(406)	24
Miscellaneous	--	(20)
Total Income	\$ 21,259	\$ 24,127
<u>Expense:</u>		
Decennial Index	7,592	--
Short Course II Notes Printing	4,161	2,617
Short Course III Administration	6,193	89
Short Course III Notes Printing	--	5,762
Short Course IV Administration	--	5,718
Short Course IV Notes Printing	--	3,993
Storage & Mailing	1,176	2,250
Promotion	--	20
Total Direct Costs	\$ 19,122	\$ 20,449
Indirect Costs	3,755	4,356
Total Expense	\$ 22,877	\$ 24,805
INCREASE (DECREASE) IN FUND	\$ (1,618)	\$ (678)

Table 2. (continued)

	Dec. 31, 1976	Dec. 31, 1977
<u>OPERATION OF AMERICAN MINERALOGIST</u>		
<u>Income:</u>		
Subscriptions	\$ 67,851	\$ 83,300
Page charges	24,895	24,520
Reprints	9,593	5,615
Author Alteration Charges	1,324	808
Back Issues	3,608	3,084
Royalties	819	826
Advertising	3,341	3,439
Miscellaneous	4,611	188
Total Income	\$116,042	\$121,780
<u>Expense:</u>		
Editorial Office:		
Honorarium	\$ 2,000	\$ 2,000
Salaries	12,289	15,031
Expenses	3,822	2,228
Travel	674	1,009
Publication and Distribution:		
Composition & Set-up	54,382	54,210
Printing & Mailing	25,118	24,551
Author Alterations	6,748	3,699
Advertising	70	1,683
Reprints	6,759	6,861
Salaries	7,845	922
List Maintenance	--	8,791
Computer	1,472	537
Back Issue Handling	1,428	1,693
Services & Supplies	1,198	729
Promotion & Miscellaneous	--	255
Total Direct Costs	\$123,805	\$124,199
Indirect Costs	24,315	26,454
Total Expense	\$148,120	\$150,653
MEMBER SUBSCRIPTION COSTS	\$ 32,078	\$ 28,873
<u>ENDOWMENT FUND</u>		
<u>Income:</u>		
Contributions	\$ 185	\$ 730
New Life Memberships	1,200	1,600
Investment Portfolio	(20,220)	7,847
Total Income	\$ (18,835)	\$ 10,177
<u>Expense:</u>		
½ Div/Int. Income transferred	5,184	6,220
Life Member Dues transferred	4,100	4,180
Total Expense	\$ 9,284	\$ 10,400
INCREASE (DECREASE) IN FUND	\$ (28,119)	\$ (223)
<u>KRAUS CRYST. FUND</u>		
<u>Income:</u>		
Goodyear Dividends	\$ 440	\$ 480
Savings Interest	152	184
Transfer from Scholarship Fund	--	1,254
Total Income	\$ 592	\$ 1,918
<u>Expense:</u>		
Grant-in-Aid	--	1,697
Total Expense	\$ --	\$ 1,697

Table 2. (continued)

	Dec. 31, 1976	Dec. 31, 1977
<u>MEMBERSHIP ASSISTANCE FUND</u>		
<i>Income:</i>		
Bond Interest	\$ 412	\$ 413
Total Income	\$ 412	\$ 413
<i>Expense:</i>		
Membership Assistance	\$ --	\$ 14
Total Expense	\$ --	\$ 14

\*Negative values in parentheses

tion. A copy of the full audit report is on file at the Society's business office at 1909 K Street, N.W., Washington, D.C. 20006.

The total assets less liabilities of the Society are \$392,712, down 3.5 percent from December 31, 1976. During FY 1977 the market value of the Investment Fund decreased 3.9 percent. The MSA budget for FY 1978 was approved by Council on November 9, 1977. This budget predicts a \$7000 operating loss for FY 1978 caused by an expected 7 percent increase in salaries and other services. The Operating Fund, which is invested with the Endowment Fund, now stands at \$67,313. This is surplus money accumulated over the last several years and can be used in the future to defray operating losses such as predicted for FY 1978 or to balance the effect of inflation on our investments.

The Revolving Fund shows a good profit from our other publishing activities, Short Course notes and lectures, sales of indices, etc. There is now an \$1800 surplus invested plus a \$36,000 inventory of books. The Short Course program of the MSA is a resounding success, administratively, scientifically, and financially. This is due to the great energy and competence of those who contributed to the program over the past 4 years and especially to Paul H. Ribbe, the program editor.

The Mineralogical Society of America continues to be in a sound financial position. In conclusion, I wish to thank our professional accounting staff at the MSA business office for their many services to our Society.

MALCOLM ROSS  
Treasurer

### Report of the MSA Financial Advisory Committee for 1977

The action of the stock market during 1977 can only be described as indecisive to poor. The Dow Jones Industrial Average declined by 17.3% during 1977. The MSA portfolio resisted the market trend, however, and declined by only 3.9% from a market value of \$401,590.33 at the close of 1976 to \$385,880.55 at the close of 1977. This stability is gratifying.

Table 1 lists the individual stocks and bonds within the portfolio and the market evaluation of each as of December 30, 1977. The total of dividends and interest received in 1977 was \$20,549.83 (Table 2). A

Table 1. MSA investment portfolio

Portfolio	Cost	Market Value 12/30/77
<b>SENIOR SECURITIES</b>		
15K Commercial Credit Co. Notes, 8.4%	\$ 15,000.00	\$ 15,225.00
10K Digital Equipment, conv. deb., 4.5%	10,000.00	10,150.00
35K Georgia Power Co., 1st Mtg., 7.625%	25,550.00	29,487.50
200 Ingersoll Rand, \$2.35 cv. pfd.	10,406.80	7,875.00
15K Intl. Bank Recon. Dev., 8.15%	15,022.50	14,906.25
20K Transcont. Gas Pipe Line, 4.875%	14,968.00	17,600.00
10K U.S. Steel, sub. deb. cv., 5.75%	10,000.00	7,762.50
30K U.S. Treasury Notes, 8.0%	30,004.69	30,506.10
	\$130,951.99	\$133,512.35
<b>COMMON STOCKS</b>		
200 American Standard	5,799.35	7,700.00
200 American Tel. & Tel.	11,086.46	12,100.00
200 Amsted Industries	6,864.87	11,300.00
100 CBS Inc.	5,752.50	4,975.00
200 Chessie System Inc.	8,106.00	6,475.00
100 Colt Industries	4,711.75	4,800.00
200 Continental Oil Co.	7,127.50	6,000.00
300 Diamond Shamrock	9,643.70	8,887.50
200 Dresser Industries	6,837.01	8,825.00
400 El Paso Co.	6,528.67	6,400.00
125 Ford Motor Co.	6,031.51	5,718.75
200 Hilton Hotels	4,410.84	5,200.00
200 Hospital Corp. America	4,864.20	5,375.00
300 Houston Natural Gas	8,709.23	8,137.50
45 International Business Machines	10,283.75	12,307.50
100 Intl. Minerals & Chemicals	4,051.00	4,075.00
300 Koppers	6,947.80	6,825.00
400 Levi Strauss & Co.	8,333.89	12,000.00
318 MCA	11,375.25	12,362.25
200 McDermott, J. Ray	8,939.00	11,300.00
400 Melville Corp.	8,251.49	11,150.00
500 Middle South Utilities	8,375.00	8,250.00
200 Northwest Industries	6,867.68	11,400.00
200 Overseas Shipholding Group	5,441.18	4,850.00
100 Owens Corning Fiberglass	6,521.82	6,625.00
306 Pittston	10,287.33	7,114.50
400 Potlatch Corp.	11,395.73	11,500.00
200 U.S. Steel	9,463.48	6,300.00
300 United Technologies Corp.	7,892.99	10,762.50
400 Woolworth, F. W.	9,798.18	7,550.00
100 Xerox	5,415.00	4,675.00
	\$236,114.16	\$250,940.50
Cash Balance	1,427.70	1,427.70
TOTALS	\$368,493.85	\$385,880.55

capital loss of \$6,094.63 occurred as a result of sales during the year (Table 3).

Respectfully submitted,  
S. W. BAILEY, *Chairman*  
P. M. BETHKE  
E. F. OSBORN  
D. W. RANKIN  
M. ROSS, *Treasurer*  
P. TOULMIN, 3rd

Table 2. Dividends and interest in 1977

SENIOR SECURITIES		
150	Commercial Credit Co., 8.4%	\$1,260.00
10K	Digital Equipment, cv. deb., 4.5%	130.00
35K	Georgia Power, 1st mtg., 7.625%	2,668.76
200	Ingersoll Rand, \$2.35 cv. pfd.	470.00
15K	Intl. Bank Recon. Dev., 8.15%	1,222.50
20K	Transcont. Gas Pipe Line, 4.875%	1,390.74
10K	U. S. Steel, sub. deb. cv., 5.75%	575.00
30K	U. S. Treasury Notes, 8.0%	2,400.00
		\$10,117.00
COMMON STOCKS		
200	American Standard	345.00
200	American Tel. & Tel.	820.00
200	Amsted Industries	450.00
100	CBS, Inc.	260.00
200	Chessie System	464.00
100	Colt Industries	187.50
200	Continental Oil	270.00
300	Diamond Shamrock	352.50
200	Dresser Industries	168.00
400	El Paso Co.	330.00
125	Ford Motor	380.00
200	Hilton Hotels	55.00
300	Houston Natural Gas	225.00
45	Intl. Business Machines	450.00
100	International Paper	150.00
300	Koppers	285.00
400	Levi Strauss	330.00
318	MCA	306.75
200	McDermott, J. Ray	290.00
400	Melville Corp.	384.00
500	Middle South Utilities	517.50
200	Northwest Industries	510.00
200	Overseas Shipholding Group	30.00
200	Owens Illinois	199.28
100	Owens Corning Fiberglass	101.50
306	Pittston Co.	394.80
400	Potlatch Corp.	352.00
400	Ryan Homes	50.00
100	Union Carbide	280.00
200	U. S. Steel Corp.	440.00
300	United Technologies	495.00
400	Woolworth, F. W.	560.00
		\$10,432.83
	TOTAL	\$20,549.83

Table 3. Capital gains or losses in 1977

	Cost	Sale	Gain or (Loss)	
100	Transcont. Gas Pipe Line	\$7,484.00	\$8,700.00	\$1,216.00
600	Great Atlantic & Pacific	7,780.00	6,425.83	(1,354.17)
100	International Paper	5,918.23	4,041.61	(1,876.62)
200	Owens Illinois	5,732.78	4,719.34	(1,013.44)
400	Ryan Homes	8,266.73	7,389.45	(877.28)
100	Union Carbide	6,293.23	4,104.11	(2,189.12)
	TOTALS	\$41,474.97	\$35,380.34	(\$6,094.63)

### Report of the Editor (October 1, 1976–September 30, 1977)

The Editor is pleased to report that there was no backlog of manuscripts awaiting publication at any time during 1977. Manuscripts that had passed the review process and were ready for publication were submitted to the printer for whatever issue was then in preparation. All the issues published during the year have been printed and mailed on schedule, thanks to effective cooperation between the editorial office and the printer.

Manuscripts received during the twelve months ending September 30, 1977, totalled 224, a slight reduction from the 240 received during the previous twelve months (when the Geobarometry–Geothermometry issue produced additional manuscripts). Council authorized a maximum of 1400 pages for *The American Mineralogist*, Volume 62, 1977; the actual number of pages will be approximately 1312. Table 1 summarizes the operations of the journal for the period October 1, 1976–September 30, 1977.

The Editor expresses his appreciation for the efficient services of Ms. Ann Garlington as Managing Editor, and for the efforts of the Board of Associate Editors, which are essential to maintain and improve the quality of the journal. The services of the retiring Associate Editors Dr. Rosemary Vidale and Professor Wayne A. Dollase deserve special mention, as do the contributions of Dr. Michael Fleischer and his collaborators in the preparation of "New Mineral Names." Those who have kindly reviewed manuscripts for the journal are listed below.

BRIAN MASON  
*Editor*

Table 1. *The American Mineralogist*. Summary of operations, October 1, 1976–September 30, 1977

Volume	No.	# of Major Articles	# Pages Major Articles	# Pages Ads	# Pages Misc.	Total Pages
<b>Published</b>						
61	9–10	35	228	5	7	240
61	11–12	16	235	5	16	256
62	1–2	24	172	5	15	192
62	3–4	32	205	10	8	224
62	5–6	26	190	4	30	224
62	7–8	26	209	5	9	224
<b>In Press</b>						
62	9–10	27	214	4	6	224
62	11–12	~27	~196	~5	~23	224
Manuscripts accepted, in press				24		
Manuscripts accepted, being processed				5		
Manuscripts under review				91		
Total manuscripts on hand				120		
Manuscripts rejected				24		
Manuscripts withdrawn				1		

## Referees 1977

John W. Anthony	R. C. Ewing	Gerhard Huckenholz	Charles T. Prewitt
D. E. Appleman	Jen Ho Fang	Frank E. Huggins	Paul Ribbe
S. W. Bailey	George Faust	C. S. Hurlbut, Jr.	Dick Robie
P. B. Barton	Jeff Fawcett	J. A. Ibers	Peter Robinson
Werner Baur	P. M. Fenn	C. O. Ingamells	P. D. Robinson
P. M. Bethke	Larry Finger	T. N. Irvine	H. E. Robson
Arthur Boettcher	Joseph Finney	Jun Ito	P. Roeder
Joe Boyd	Michael Fleet	A. R. Kampf	Philip E. Rosenberg
John Brady	Michael Fleischer	Sven Karup-Møller	Malcolm Ross
Gordon Brown	Ray Fletcher	Susan W. Kieffer	George R. Rossman
Ned Brown	E. E. Foord	R. J. Kirkpatrick	A. P. Ruotsala
W. M. D. Bryant	W. C. Forbes	Cornelis Klein	Hiroaki Sato
Charles W. Burnham	Fred Frey	George A. Lager	Cecil J. Schneer
R. G. Burns	Edgar Froese	R. F. Martin	S. D. Scott
D. Burt	Robert F. Fudali	J. W. Matthews	H. R. Shaw
Robert Charles	Subrata Ghose	Ian McCallum	Frederic R. Siegel
Felix Chayes	G. V. Gibbs	H. O. A. Meyer	B. J. Skinner
Joseph Chernosky	R. F. Giese	Paul B. Moore	J. V. Smith
John M. Christie	Bruno J. Giletti	Ben Morgan	J. Smyth
Joan R. Clark	Robert B. Graf	John W. Morse	H. F. W. Taylor
A. J. Cohen	Donald L. Graf	S. A. Morse	R. J. Tettenhorst
L. H. Cohen	Timothy L. Grove	J. L. Munoz	T. P. Thayer
Robert Coleman	John E. Grover	Kurt Nassau	Kenneth M. Towe
R. R. Compton	S. Guggenheim	Alexandra Navrotsky	D. J. Vaughan
James R. Craig	Necip Guven	Robert Newton	Rosemary Vidale
G. K. Czamanske	John Haas	Gary Novak	Jeffrey Warner
Frank Dickson	S. E. Haggerty	E. W. Nuffield	Joe L. White
Wayne A. Dollase	F. C. Hawthorne	Yoshi Ohashi	W. B. White
Gabrielle Donnay	R. Hazen	P. M. Orville	Sid Williams
J. D. H. Donnay	H. Helgeson	J. J. Papike	Robert Wintsch
Eric Dowty	G. R. Himmelberg	Donald R. Peacor	John Wood
D. Egger	J. R. Hindman	U. Peterson	Michael M. Wood
Gary Ernst	L. S. Hollister	J. E. N. Pike	Peter Wyllie
Howard Evans	Guy L. Hovis	Dean Presnall	Richard Yund

# LIST OF FORMER OFFICERS AND MEETING PLACES

## Honorary Presidents

Edward S. Dana 1925-1935  
 Charles Palache 1949-1954  
 Edward H. Kraus 1955-1973  
 Edgar T. Wherry 1974-

## Presidents

1920 Edward H. Kraus	1935 Clarence S. Ross	1950 George Tunell	1965 George T. Faust
1921 Charles Palache	1936 William S. Bayley	1951 A. Pabst	1966 Brian H. Mason
1922 Thomas L. Walker	1937 Norman L. Bowen	1952 Michael Fleischer	1967 Felix Chayes
1923 Edgar T. Wherry	1938 Ellis Thomson	1953 J. D. H. Donnay	1968 James B. Thompson
1924 Henry S. Washington	1939 Max N. Short	1954 Sterling B. Hendricks	1969 Francis J. Turner
1925 Arthur S. Eakle	1940 William F. Foshag	1955 Harry H. Hess	1970 William F. Bradley
1926 Waldemar T. Schaller	1941 Frederick E. Wright	1956 Clifford Frondel	1971 Julian R. Goldsmith
1927 Austin F. Rogers	1942 Arthur F. Buddington	1957 D. Jerome Fisher	1972 Hatten S. Yoder, Jr.
1928 Esper S. Larsen	1943 John F. Schairer	1958 George E. Goodspeed	1973 Joseph V. Smith
1929 Arthur L. Parsons	1944 R. C. Emmons	1959 Ralph E. Grim	1974 S. W. Bailey
1930 Herbert E. Merwin	1945 Kenneth K. Landes	1960 Joseph Murdoch	1975 Arnulf Muan
1931 Alexander H. Phillips	1946 Paul F. Kerr	1961 E. F. Osborn	1976 E-an Zen
1932 Alexander N. Winchell	1947 M. J. Buerger	1962 Ian Campbell	1977 F. Donald Bloss
1933 Herbert P. Whitlock	1948 M. A. Peacock	1963 C. S. Hurlbut, Jr.	
1934 John E. Wolff	1949 John W. Gruner	1964 Leonard G. Berry	

## Vice Presidents

1920 Thomas L. Walker	1935 Ellis Thomson	1950 Ralph E. Grim	1965 Brian H. Mason
1921 Waldemar T. Schaller	1936 Harold L. Alling	1951 Michael Fleischer	1966 Felix Chayes
1922 Frederick A. Canfield	1937 H. V. Ellsworth	1952 J. D. H. Donnay	1967 James B. Thompson
1923 George F. Kunz	1938 Kenneth K. Landes	1953 Sterling B. Hendricks	1968 Francis J. Turner
1924 Washington A. Roebing	1939 Burnham S. Colburn	1954 Harry H. Hess	1969 William F. Bradley
1925 Herbert P. Whitlock	1940 Ian Campbell	1955 Clifford Frondel	1970 Julian R. Goldsmith
1926 George Vaux, Jr.	1941 William J. McCaughey	1956 D. Jerome Fisher	1971 Hatten S. Yoder, Jr.
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1930 John E. Wolff	1945 George Tunell	1960 E. F. Osborn	1975 E-an Zen
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**Annual Meeting Places**

1920 Chicago, Illinois	1940 Austin, Texas	1960 Denver, Colorado
1921 Amherst, Massachusetts	1941 Boston, Massachusetts	1961 Cincinnati, Ohio
1922 Ann Arbor, Michigan	1942 No meeting held	1962 Houston, Texas
1923 Washington, D. C.	1943 No meeting held	1963 New York, New York
1924 Ithaca, New York	1944 No meeting held	1964 Miami Beach, Florida
1925 New Haven, Connecticut	1945 Pittsburgh, Pennsylvania	1965 Kansas City, Missouri
1926 Madison, Wisconsin	1946 Chicago, Illinois	1966 San Francisco, California
1927 Cleveland, Ohio	1947 Ottawa, Canada	1967 New Orleans, Louisiana
1928 New York, New York	1948 New York, New York	1968 Mexico City, Mexico
1929 Washington, D. C.	1949 El Paso, Texas	1969 Atlantic City, New Jersey
1930 Toronto, Canada	1950 Washington, D. C.	1970 Milwaukee, Wisconsin
1931 Tulsa, Oklahoma	1951 Detroit, Michigan	1971 Washington, D. C.
1932 Cambridge, Massachusetts	1952 Boston, Massachusetts	1972 Minneapolis, Minnesota
1933 Chicago, Illinois	1953 Toronto, Canada	1973 Dallas, Texas
1934 Rochester, New York	1954 Los Angeles, California	1974 Miami Beach, Florida
1935 New York, New York	1955 New Orleans, Louisiana	1975 Salt Lake City, Utah
1936 Cincinnati, Ohio	1956 Minneapolis, Minnesota	1976 Denver, Colorado
1937 Washington, D. C.	1957 Atlantic City, New Jersey	1977 Seattle, Washington
1938 New York, New York	1958 St. Louis, Missouri	
1939 Minneapolis, Minnesota	1959 Pittsburgh, Pennsylvania	

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1938 Waldemar T. Schaller	1956 Arthur F. Buddington	1969 Fritz Laves
1940 Leonard James Spencer	1957 Walter F. Hunt	1970 George W. Brindley
1941 Esper S. Larsen, Jr.	1958 Martin J. Buerger	1971 J. D. H. Donnay
1945 Edward H. Kraus	1959 Felix Machatschki	1972 Elburt F. Osborn
1946 Clarence S. Ross	1960 Tom F. W. Barth	1973 George Tunell
1947 Paul Niggli	1961 Paul Ramdohr	1974 Ralph E. Grim
1948 William Lawrence Bragg	1962 John W. Gruner	1975 Michael Fleischer
1949 Herbert E. Merwin	1963 John Frank Schairer	1975 O. Frank Tuttle
1950 Norman L. Bowen	1964 Clifford Frondel	1976 Carl W. Correns
1952 Frederick E. Wright	1965 Adolf Pabst	1977 Raimond Castaing
1953 William F. Foshag	1966 Max H. Hey	
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1954 Hatten S. Yoder, Jr.	1963 Nobuo Morimoto	1972 Arthur L. Boettcher
1955 Julian R. Goldsmith	1964 William S. Fyfe	1973 Paul Brian Moore
1956 George C. Kennedy	1965 Peter J. Wyllie	1974 James J. Papike
1957 Rustum Roy	1966 David B. Stewart	1975 Roger G. Burns
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