



**The American Institute of Mining, Metallurgical,
and Petroleum Engineers (AIME) History Walk:
A Companion Booklet**



Shown here is the Wyoming Valley Hotel, the founding site of AIME. Go to page 5 to learn more about this historic location.

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This interactive commemorative booklet was produced as a companion to the AIME History Walk display to celebrate the 150th anniversary of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) and its four member societies—the Association for Iron and Steel Technology (AIST); the Society for Mining, Metallurgy, and Exploration (SME); the Society of Petroleum Engineers (SPE); and The Minerals, Metals & Materials Society (TMS).

Read on to learn about the shared history of these organizations.

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A COMMON LEGACY FOR MANY DISCIPLINES

AIME 150
ANNIVERSARY
CELEBRATION

BECAUSE OUT OF MANY DISCIPLINES AND INDUSTRIES, WE ARE ONE.

Explore the legacy of one of the first national engineering societies established in the United States. Find out how the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) became four autonomous societies as you read through the collective history of our professional community and celebrate the 150th Anniversary of AIME!



This roadside marker commemorates the founding of AIME in Wilkes-Barre, PA. Read more on page 33.

Attendees at a 1917 AIME Annual Meeting in St. Louis, Missouri. See more on pages 12–13.



IT STARTED IN WILKES-BARRE, PENNSYLVANIA

On May 16, 1871, 22 engineers met in Wilkes-Barre, Pennsylvania, and established the **American Institute of Mining Engineers (AIME)**. They proposed two main purposes for the organization: "First, the more economical production of useful minerals and metals. Second, the greater safety and welfare of those employed in these industries."



Pictured here (from top left) are four of the Institute's 22 founding members: Henry S. Drinker; Thomas M. Drown; Rossiter W. Raymond; and Richard P. Rothwell.



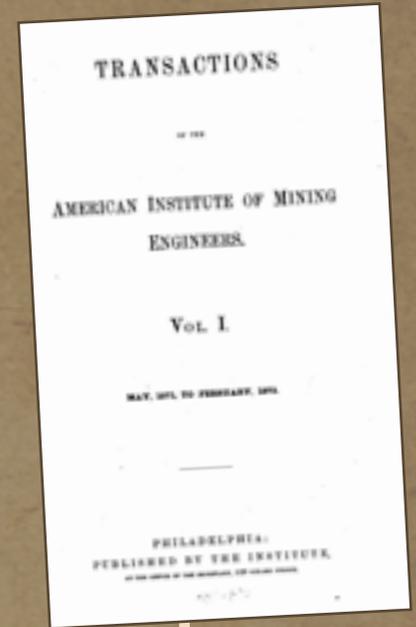
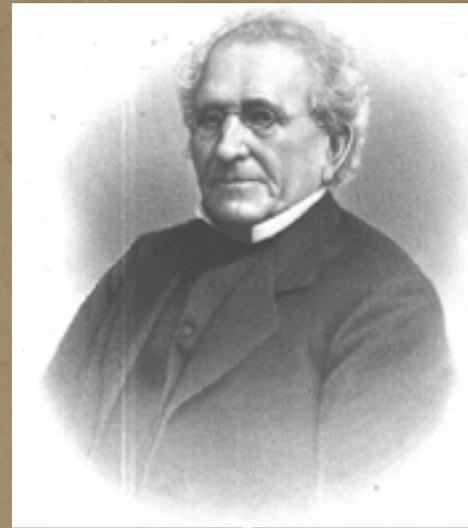
The Institute's first annual meeting was held in August 1871 on the campus of Lehigh University in Pennsylvania. Touring local mines and metallurgical works was a highlight of the event, such as the Uberroth Mine in Friedensville, pictured here ca. 1876.



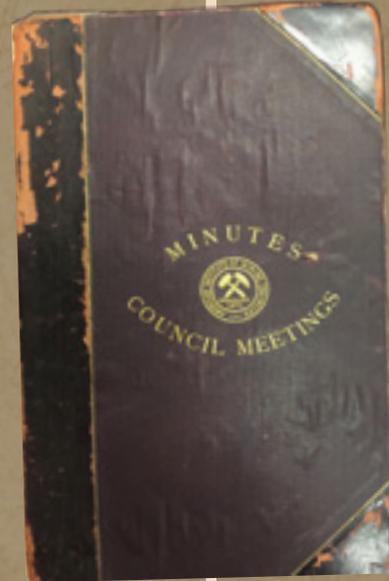
Ellen Henrietta Swallow Richards, founder of the field of ecology and first female graduate and faculty member of the Massachusetts Institute of Technology, was inducted as the Institute's first female member in 1879.



Cover from the
1871-72
AIME Council Meeting
Minutes.



1871:
The American Institute
of Mining Engineers is
founded at the Wyoming
Valley Hotel in Wilkes-Barre,
Pennsylvania.



1872:
David Thomas, first
president of AIME, is named
the first AIME Honorary
Member, considered the
highest honor the Institute
offers.

1873:
The first volume of AIME
Transactions is published.

1873:
The rules of the Institute
establish the membership
grades of Members,
Honorary Members, and
Associates.

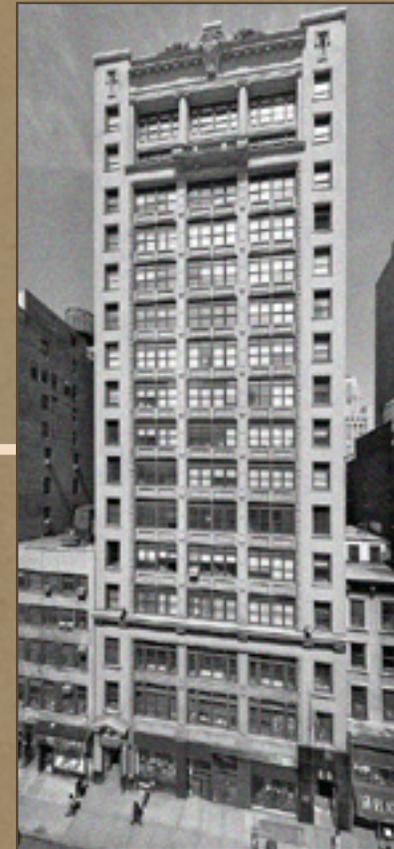
1870

1872

1873

1874

1875



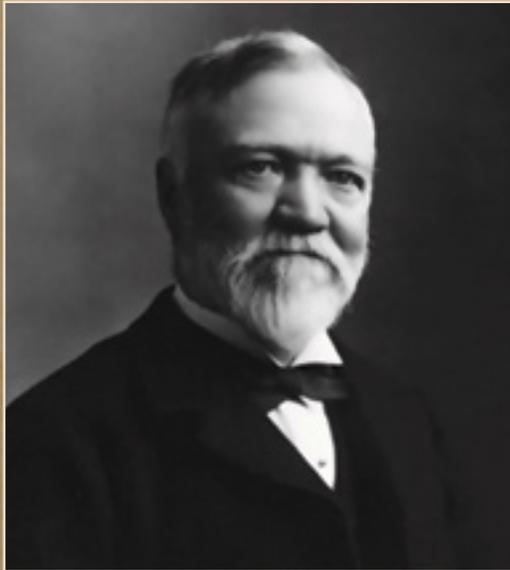
1876:
The Institute participates in the Centennial Exposition, held in Philadelphia, Pennsylvania.

1884:
AIME headquarters moves to New York City, New York.

1899:
Attendees and guests visit the Mother Lode gold belt during the AIME fall meeting in San Francisco, California.

THE “FOUNDER SOCIETIES”

As the Institute entered a new century, its focus shifted from establishing bylaws, technical meetings, and publications to strengthening its bonds with other engineering societies. In this decade, AIME prioritized “cooperation and mutual knowledge” among these organizations that would set the stage for diversification and specialization in the years to come and solidify its position as a Founder Society.



In 1903, AIME member **Andrew Carnegie** earmarked \$1.5 million for the construction of a new building for the leading national engineering societies, with the **American Society of Mechanical Engineers (ASME)**, the **American Institute of Electrical Engineers (AIEE)**, and AIME accepting Carnegie’s offer.

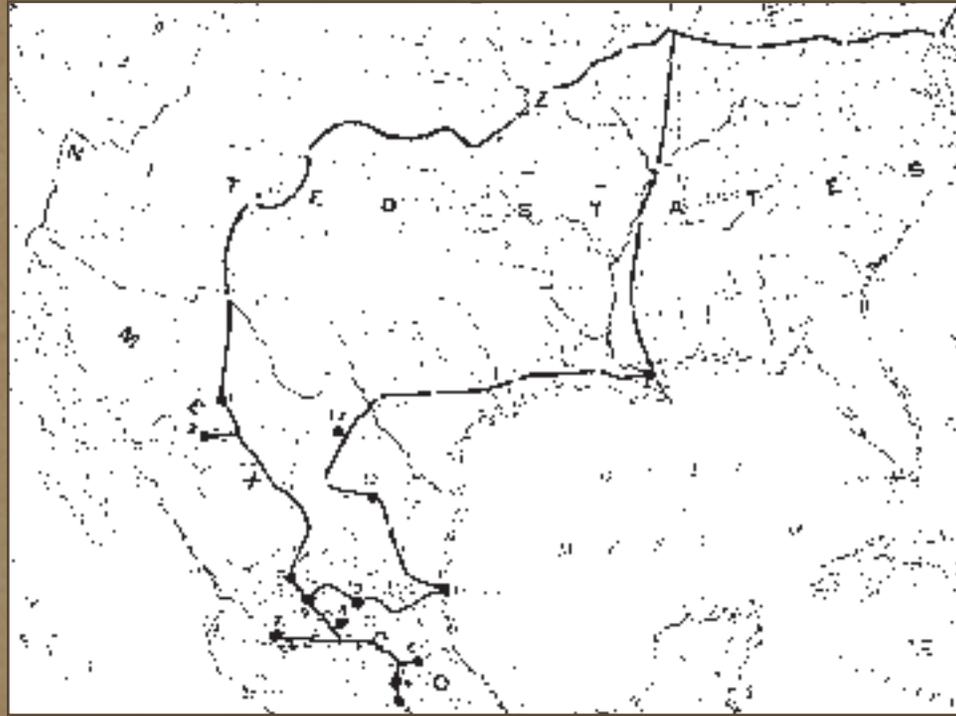


AIME became incorporated on December 29, 1904, and the **United Engineering Society** (now the United Engineering Foundation) was formed, establishing AIME as a Founder Society. As seen in the center photo above, the building was dedicated on May 6, 1906, with Carnegie, Rossiter Raymond, and John Fritz all in attendance. Later that year,



the Founder Societies moved into the “**Carnegie building**.”

In 1907, AIME transferred its collection of technical literature from Rossiter Raymond’s office to the new building. These publications were consolidated with contributions from the other Founder Societies, creating the **Engineering Societies Library**.

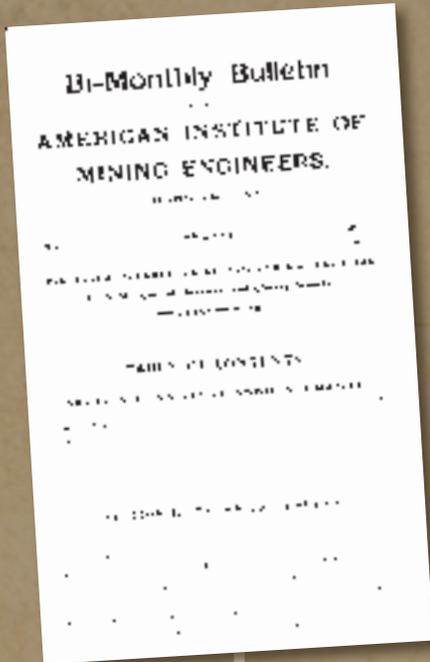


1899–1901:
James Douglas serves two terms as AIME President. The Douglas Award, established in 1922, is conferred annually to an SME or TMS member.

1901:
In conjunction with its November 1901 meeting, the Institute organized a month-long train excursion that stopped at a number of landmarks along the way to the meeting in Mexico.

1902:
The intersociety John Fritz Medal (right) is established. Inaugural recipient John Fritz (above, right) was AIME's 1894 President.





A group of engineers gather together in October **1906**.



1906: These gold watch fobs are presented to members of the London Reception Committee, Stewards of the Provincial Tour, and German Reception Committee at AIME's July 1906 meeting in London.



1905: The *AIME Bulletin* is established as a bi-monthly publication, encompassing news for members as well as technical papers.

1908: The *AIME Bulletin* moves to a monthly publication model.

1910: The American Society of Civil Engineers joins the United Engineering Society to become the fourth Founder Society.

NEW MEMBERS AND A NEW NAME

This decade is characterized by the increased diversification within the organization, as evidenced by the establishment of the Institute's first local sections and technical divisions and committees to accommodate this "burgeoning specialization in technology." Additionally, the formation of the Women's Auxiliary to AIME and the acquisition of a similar technical group added a new dynamic to the Institute.



The Institute's first **Local Sections**—New York, Boston, and Spokane—were formed in 1911, allowing "more frequent meetings, enabling technical exchange and social contact for all members, no matter how remote their location." The map (pictured above) shows AIME's 39 sections in 1946.

Shortly after in 1912, the **Iron & Steel Committee** was created, becoming the first technical committee, which were later expanded into Professional Divisions.



In response to humanitarian needs during World War I, the **Woman's Auxiliary to AIME** (WAAIME) was founded in 1917. Amy Jennings, pictured here, served as the first President of WAAIME. After the war, the organization's purpose shifted to raising funds in order to disburse scholarship loans for students.



In 1918, the American Institute of Metals (AIM) joined with AIME to become the **Institute of Metals Division**, AIME's first Professional Division, with William M. Corse serving as its first Chair.

During the February 1919 Annual Meeting, the organization was renamed the **American Institute of Mining and Metallurgical Engineers**, and kept the abbreviation AIME.



1911:

The October 1911 San Francisco meeting includes an excursion to California's redwood forests.

1913:

The Committee on Publications establishes a reader review system for papers submitted to *AIME Transactions*—a system which is still, in some form, in use today.

1915:

The President's Prizes are established, awarding a small sum of money for the best essays by junior members or members of affiliated student organizations.

1911

1912

1913

1914

1915

1916



115th MEETING A. I. M. E. ST. LOUIS, JOPLIN
OCT. 8-13. 1917.



1917:

Shown here are attendees of the September 1917 St. Louis, Missouri, meeting outside the Century Building.

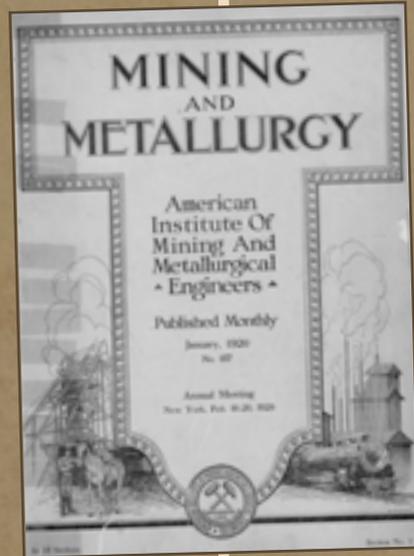
MAINI & TULSA.



1919:
The monthly *Mining and Metallurgy* magazine is established to replace the *Bulletin*.



1918:
A group of delegates to the September 1918 Colorado meeting are seen here on an excursion ascending Pikes Peak by car.



1920:
Herbert C. Hoover (left) serves as AIME President; he goes on to serve as the 31st President of the United States (1929–1933). Shown above is the 1920 Annual Meeting Awards Dinner, where Hoover officially began his term as AIME President.

SHOWCASING EXCELLENCE

As 1921 marked 50 years for the Institute, membership numbers were nearing 10,000. In the ensuing years, AIME focused its efforts on advancing excellence within the professions through the creation of awards and honorary lectures, a number of which still exist today. The members themselves also drove expansion through the establishment of new divisions and conferences.



The Institute of Metals Division established the annual **Institute of Metals Lecture**, to be delivered by a distinguished individual at AIME's annual meeting, in 1921. In 1922, the Institute established the **James Douglas Gold Medal**, pictured above, honoring 1899–1900 President James Douglas, to recognize distinguished achievements in nonferrous metallurgy.



The Oil and Gas Committee became the **Petroleum Division of AIME** in 1922 under the leadership of A.F.L. Bell, 1920–1921 Oil and Gas Committee Chair; Ralph Arnold, first Chair of the Petroleum Division; and Everette Lee DeGolyer (pictured), who succeeded Arnold as Division Chair and served as 1927 President of AIME. In 1928, the Iron and Steel Committee became the **Iron and Steel Division**, with Ralph H. Sweetser serving as its first Chair.



1923:
The J.E. Johnson Jr. Award and the Howe Memorial Lecture are both established this year. Henry Marion Howe, 1893 AIME President, is pictured here.

1924:
Members of WAAIME visited the Wilson Dam and U.S. Nitrate capital Plant at Muscle Shoals during the October 1924 AIME meeting, held in Birmingham, Alabama.



1925:
The first Open Hearth Conference is held, organized by Leo F. Reinartz (pictured), Chair of the Open Hearth Committee, who later became AIME President in 1954.

1921:
The Institute celebrates 50 years at its Wilkes-Barre, Pennsylvania, meeting.





An official souvenir given to attendees at the **1925** Annual Meeting, held in Salt Lake City, Utah.



1925:
A special tour held with the February 1925 New York AIME Annual Meeting brought attendees and guests to the U.S. Naval Air Station hangar in Lakehurst, New Jersey.

1927:
The William Lawrence Saunders Medal is created to honor distinguished achievement in mining other than coal.

1927-1928:
Transactions modifies its publishing model to print several volumes in one year that are more specific to members' interests.



1925

1926

1927

1928

1929

BUILDING THE NEXT GENERATION

AIME continued to grow as the formation of new Divisions encouraged more specialization and connection among members. The Institute also began planting the seeds for a legacy much larger than itself: the next generations of engineers. By developing new scholarships and programs for students and early-career members, AIME ensured the future of the professions.



Two new membership categories were created in 1929: **Student Associate and Junior Member**. The Institute recognized offering low-cost membership to students as “the best possible investment” in order to “better the outlook for the Institute’s future.” Junior Membership was also offered at a lower rate for those in the “intermediate stage” of their careers “to provide a convenient and attractive transition” to full membership.



Three new divisions were formed in these years: the **Coal Division** in 1930, first chaired by Howard N. Eavenson (pictured above, center); the **Mineral Industry Education Division** in 1932, first chaired by C.H. Fulton; and the **Industrial Minerals Division** in 1936, first chaired by Samuel H. Dolbear and then Oliver Bowles.



In 1929, the family of longtime AIME member Seeley W. Mudd donated \$100,000 to the Institute, creating the **Seeley W. Mudd Fund** “for the advancement of the sciences of mining and metallurgy by the encouragement of research and dissemination of knowledge.” Through the Mudd Fund, AIME Junior Members were given free copies of engineering publications.



1931:
C.E. Beecher, Petroleum Division Chair, with two of his aides at a fall meeting of the Petroleum Division in Houston, Texas.



1929:
The Hoover Medal is founded to commemorate the accomplishments of Past AIME President and sitting U.S. President Herbert Hoover.



1932:
The Charles F. Rand Memorial Gold Medal is created for distinguished achievement in mining administration.



1933:
The new AIME Board of Directors meets during the 1933 Annual Meeting in New York.

1929

1930

1931

1932

1933

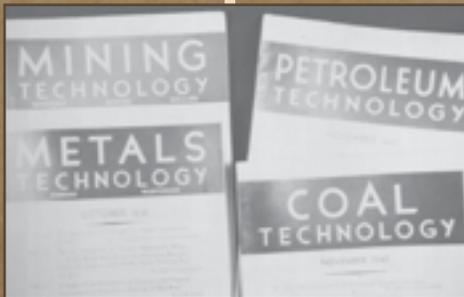
1934:

Metals Technology is formed, distributing technical papers of interest to specific members. Soon after, *Mining Technology*, *Petroleum Technology*, and *Coal Technology* were formed, establishing the "Four Technologists."



1935:

A meeting of the Ohio Section at the Youngstown Sheet & Tube Co.'s Campbell plant.



1936:

The Anthony F. Lucas Gold Medal is created for distinguished achievement in improving the technique and practice of finding and producing petroleum.



1937:

During the 1937 AIME general meeting held in Mexico City, Mexico, attendees stop for a lecture while visiting the pyramids of Teotihuacan.

A HUB OF TECHNOLOGY EXCHANGE

Over the course of World War II, AIME's role in bringing its members together and enabling technical exchange via meetings and publications became more critical than ever, as evidenced by this quote from a 1942 *Mining and Metallurgy* article: "For no matter what your engineering field, no matter what project you are working on at the minute, it's all part of our united effort."

1939-1945



Members of the Institute utilized its journals as a place to ask and answer questions on assisting war efforts on a national and global scale through personal perspectives and the publication of technical papers.

Even after the ceasefires, members continued to tackle the big questions, as seen in this piece on the education of the "Lost Generation of Mining Engineers" in a 1945 issue of *Mining and Metallurgy*.



New endowment funds were established to finance scholarships and grants, defray cost of circulating publications, and help meet rising costs of running the organization: [Charles Hayden Memorial Fund](#) (1939); [Robert C. Gemmell Memorial Fund](#) (1940); [Karl Eilers Memorial Fund](#) (1941; [Eilers](#) is pictured here); and [Henry L. Doherty Memorial Fund](#) (1945).



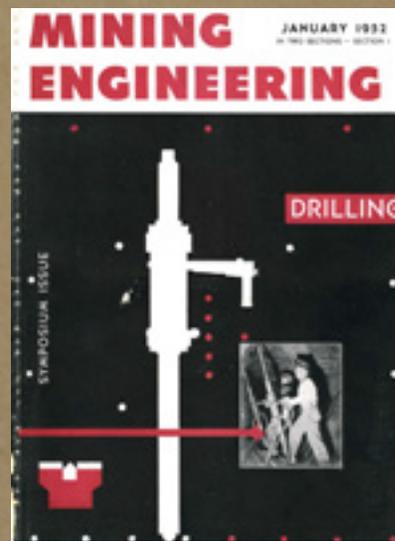
1941:
A banquet held at the Petroleum Division's fall meeting in Los Angeles, California.

1942:
Directors and officers of the WAAIME holding their board meeting during the 1942 AIME Annual Meeting.



EXPANSION OF PUBLICATION OPPORTUNITIES

As both the Institute's membership and the engineering field expanded in the post-war era, so did AIME's technical publications. In a continuation of a legacy established with the first issue of *Transactions* in 1873, the Board of Directors authorized new journals, while members began to call for a reorganization of the Institute.



Based on the recommendations of the Kinzel Committee on divisionalization and publications in 1948, three new monthly publications were created: *Journal of Metals* (left), *Journal of Petroleum Technology*, and *Mining Engineering* (right). Additionally, *Transactions* continued to publish several large volumes throughout each year.

TABLE 3—RESULTS OF 1946 MEMBER INTEREST POLL

Division	Percent of Total AIME Membership Major Interest
Institute of Metals	7.8
Petroleum	17.1
Iron and Steel	11.3
Industrial Minerals	3.0
Coal	7.0
Education	0.5
Undivisionalized Group: Mining, Geology, Metal Mining, Ore Dressing, Nonferrous Smelting, and Hydrometallurgy	53.3
	100.0

A 1946 poll, the results of which are shown here, helped several exploratory committees better understand members' technical interests. Based on committee recommendations, two field offices were established—one in Dallas, Texas, for the Petroleum Division, and one in Salt Lake City, Utah, for the Mining Branch.

The most significant group in this period was the **Long-Range Planning Committee**, formed in 1955 to further investigate the democratization and development of the Institute.



1947:

Frank Crossley, the first African American to receive a Ph.D. in metallurgical engineering, joins AIME in 1947.

(Photo credit: Smithsonian Institute.)

1948:
The Robert H. Richards Award is created for distinguished achievement that furthers the art of minerals beneficiation.



1948:
The Erskine Ramsay Gold Medal is established, recognizing distinguished achievement in mining bituminous coal and anthracite.

1949:
This cartoon and article served as an ad for the AIME Annual Meeting, published in the January 1949 Journal of Metals.



1946

1947

1948

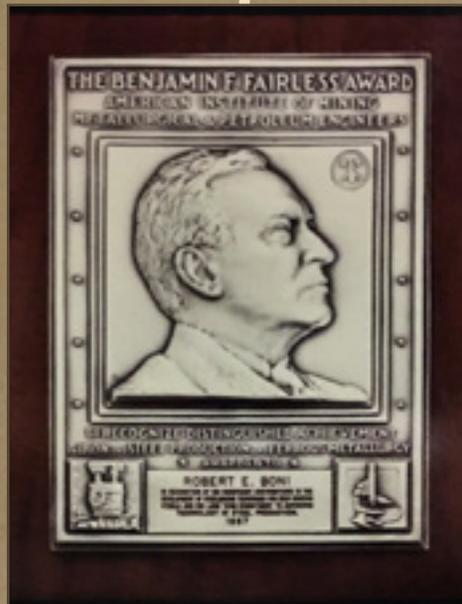
1949



1954:
The Benjamin F. Fairless Award for distinguished achievement in iron and steel production and ferrous metallurgy is created and funded through the U.S. Steel Corp.



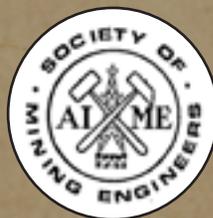
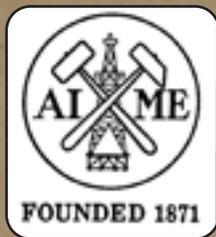
1956:
The Institute's past presidents gather at the 1956 Annual Meeting.



1950:
The Mineral Industry Education Award for contributions to the advancement of mineral industry education is created.

A PERIOD OF DYNAMIC CHANGE

On February 24, 1957, the Institute's Board of Directors approved several recommendations presented by the Long-Range Planning Committee, including changing the organization's name to the **American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME)**, signaling the evolution into the Institute as we know it today.



Also approved at the 1957 meeting was the creation of three Constituent Societies: the **Society of Mining Engineers of AIME (SME)**; **The Metallurgical Society of AIME (TMS)**; and the **Society of Petroleum Engineers of AIME (SPE)**.



AIME led the way in establishing the interdisciplinary **Offshore Technology Conference (OTC)**, providing financial backing and event management through SPE. Sponsored by nine other engineering and scientific societies, the first OTC was held in May 1969, in Houston, Texas.



A fourth Constituent Society was established by the Institute in December 1974—the **Iron and Steel Society of AIME (ISS)**—in response to the “needs and wishes of its members as they change with time.” Just a few years later, ISS, along with TMS, moved its headquarters to Warrendale, Pennsylvania, in 1978. At the same time, SME also relocated to Denver, Colorado.

1957-1980



1958:
The Hal Williams Hardinge Award for outstanding achievement that has benefitted the field of industrial minerals is established.

1961:
The Institute's headquarters moved into the United Engineering Center in United Nations Plaza in New York City.

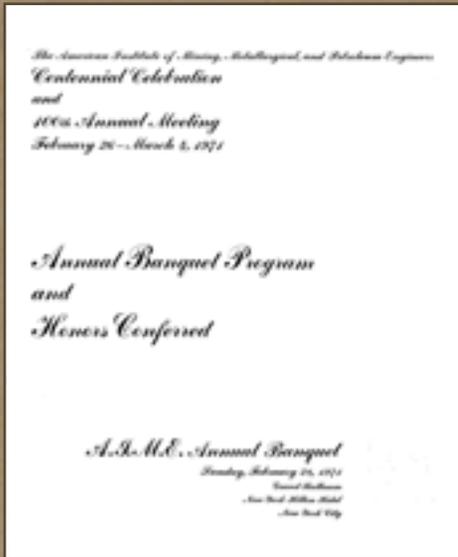


1961:
The Society of Petroleum Engineers Journal is established for papers of limited interest from SME.

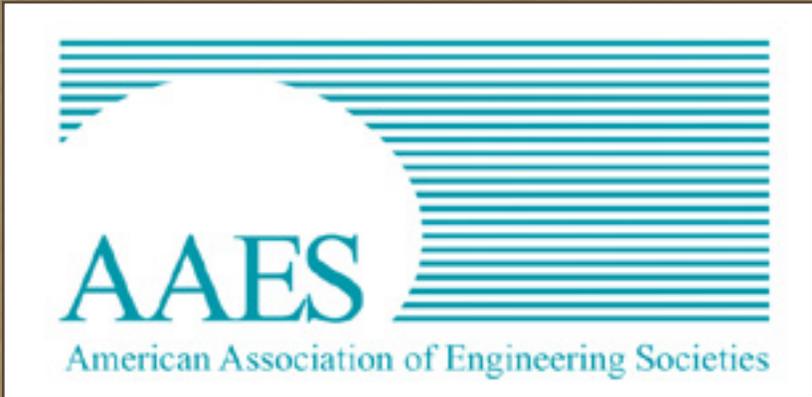
1962:
Transactions of the Society of Mining Engineers of AIME is created as a quarterly publication for specialized papers.



1964:
The Henry DeWitt Smith Scholarship is established for "worthy students in the mining, metallurgical, and petroleum departments of leading colleges and universities."



1970:
Transactions of The Metallurgical Society of AIME (established in 1958) merges with a publication from the American Society for Metals to become *Metallurgical Transactions*.



1971:
 AIME Celebrates its Centennial Anniversary in New York City, for which the planning took five years. A banquet and awards program for the 100th Annual Meeting is shown here.

1977:
 The SPE Foundation is established, with a purpose "to support and augment key Society programs."



1980:
 AIME leads the establishment of the American Association of Engineering Societies (AAES).

INCORPORATION OF THE SISTER SOCIETIES

This period of time represents the final transition of the Institute as the four Member Societies became separately incorporated and financially independent. AIME thus took on a new role of supporting Board-level activities as defined by the Societies. This change built a framework through which the Institute would “retain its position as one of the leading professional engineering organizations in the country.”



Based on the recommendations by the AIME After Transition Committee, the AIME Board of Directors, pictured here, endorsed a plan for greater decentralization at its October 1983 meeting. In 1984, the four Constituent Societies—TMS, SME, SPE, and ISS—became separately incorporated, and the following year AIME was established as a Federation comprised of four Member Societies.

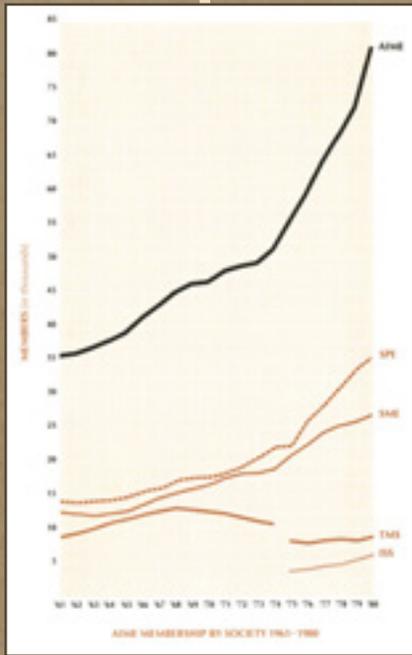


The year 1996 marked 125 years for the Institute, commemorated with a bronze plaque, notably featuring sketches of David Thomas and Herbert C. Hoover. First displayed at the TMS Annual Meeting in Anaheim, California, host of the AIME Anniversary Celebration, the plaque was presented to the Mayor of Wilkes-Barre, Pennsylvania, on May 17, 1996. The plaque still stands in the Wilkes-Barre town center today.

1980:

This chart shows the growth in AIME membership, as well as the four Constituent Societies, over two decades.

The Institute saw a 12% increase in member in 1980 alone, with the total combined membership reaching 81,733 as of January 1, 1981.



1982:

A gathering of past and present AIME Presidents at the 1982 AIME Annual Meeting in Dallas, Texas.



1983:

1982 AIME President Harold W. Paxton (right) presents Robert I. Jaffee with the James Douglas Gold Medal.

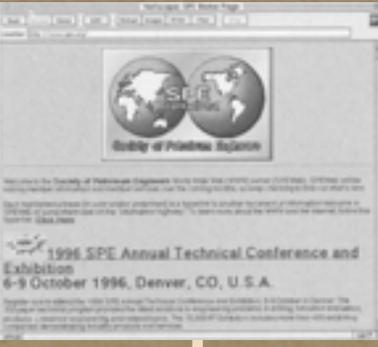
1982:

The outgoing Constituent Society presidents receive certificates of appreciation at the 1982 Annual Meeting Luncheon from AIME Executive Director Joe B. Alford (far left).





1995:
The Engineering Societies Library collection is transferred to the Linda Hall Library and The New York Public Library.



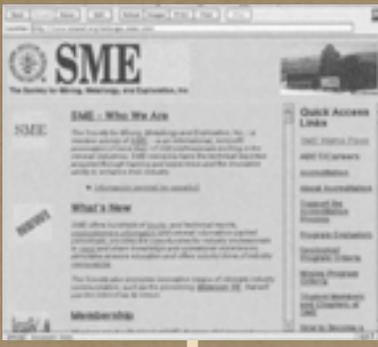
1996:
AIME and the four Member Societies all launch websites this year.



1991:
The SME Foundation is established "to be the source of funding for education and outreach of SME and the community it serves."



1993:
The TMS Foundation is established, "to strengthen and develop young professionals to meet the essential needs of the minerals, metals, and materials community."



AIME IN THE 21ST CENTURY

Although AIME's influence has spanned three centuries and its structure has shifted over the years, the Institute has never wavered in its mission to advance the engineering community. Today, AIME thrives in its role of not only supporting its four Member Societies, but also encouraging collaboration with other organizations while preserving and celebrating its own legacy.



In 2004, Member Society ISS merges with the Association of Iron and Steel Engineers (AISE) to form the **Association for Iron & Steel Technology (AIST)**.



AIME celebrated its 145th anniversary in 2016 by dedicating a roadside marker in Wilkes-Barre, Pennsylvania with leadership from AIME, SME, SPE, and TMS.

The marker reads, "American Institute of Mining Engineers—Organization founded in 1871 by 22 mining professionals to promote safety, education, economics, and technology in mining. One of the first national engineering societies in the US, the institute and its 150,000+ members honor the group's legacy by providing education and upholding professional values. The founding meeting of AIME as well as that of the Pa. Anthracite Section of AIME were held here at the site of the former Wyoming Valley Hotel."



The Institute continues the task of facilitating information exchange between its member societies and other leading engineering organizations through supporting relevant programs and events that span the disciplines.



2008-2012:

Through the James Douglas Library Endowment Fund, AIME digitizes its scientific library—550 volumes and more than 220,000 pages.



2011:

AIME reinstates the Order of the Dead Mackerel, an exclusive club for past presidents.

2004:

The AIIST Foundation is established, "to ensure the iron and steel industry of tomorrow will have a sufficient number of qualified professionals."

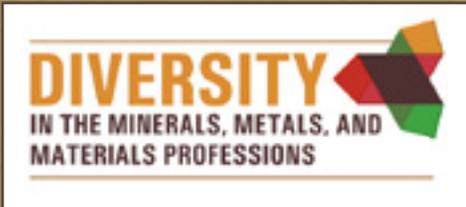
2005:

The AIME John S. Marshall Memorial Scholarship for educational opportunities in mining engineering is established.



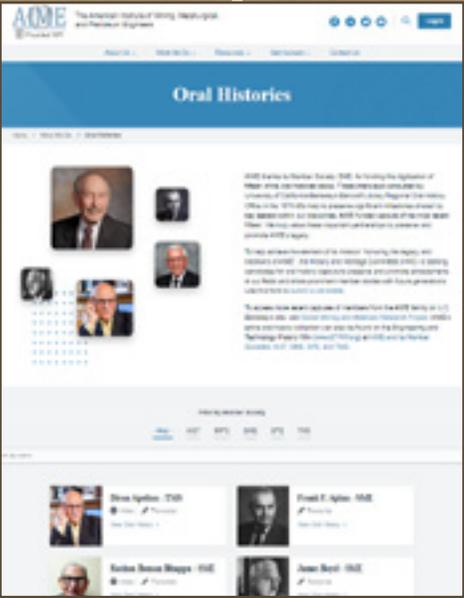
2003:

AIME moves its headquarters to Littleton, Colorado, joining SME in its headquarters building.



2014:
With support from AIME, TMS holds the first Summit on Diversity in the Minerals, Metals, and Materials Professions.

2015:
In a partnership with the University of California, Berkeley, AIME begins its oral histories project in an effort to preserve its history and traditions.



2017:
The WAAIME celebrates its 100th anniversary.



2019:
The Offshore Technology Conference celebrates 50 years.



AIME 150 ANNIVERSARY CELEBRATION

BECAUSE OUT OF MANY DISCIPLINES AND INDUSTRIES, WE ARE ONE.

LEARN MORE ABOUT YOUR AIME LEGACY



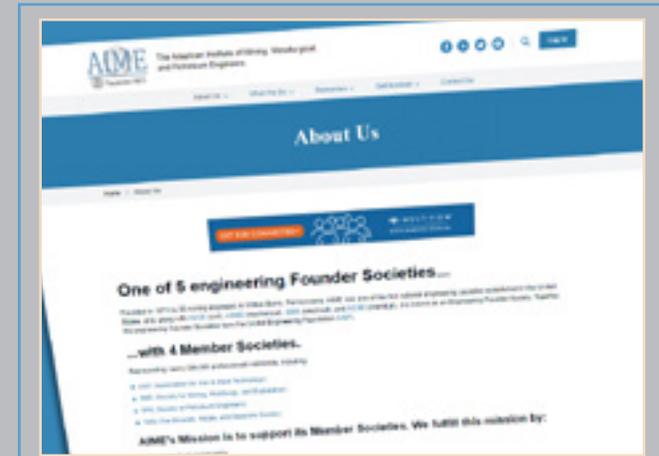
AIME Oral History Library

This collection features more than 50 interviews to help honor the legacy and traditions of the Institute. SME funded the digitalization of interviews from the 1990s, and conducted by the University of California, Berkeley's Bancroft Library Regional Oral History Office in the 1970s–90s. More recent interviews were funded and conducted by AIME.



AIME Digital Library

Access more than 550 technical documents from the AIME archives as searchable PDFs. AIST, SME, SPE, and TMS members have free access to all titles in the library.



AIME Mission, Vision, and Values

From its humble beginnings of just 22 engineers in Wilkes-Barre, Pennsylvania, AIME now represents more than 200,000 professionals and students across the globe. Learn more about its mission, vision, and values today.

