President McBride reminded the Board that we cannot use the buildings without authorization from the State. Parking was briefly mentioned. The future use of Stratton Hall was mentioned. The possibility of having our old buildings, Engineering Hall, Stratton, and Chauvenet, named to the list of Historical Landmarks was mentioned.

Mr. Bradley said that they are not seeking an immediate answer, but was presenting the matter as information at this time. Mr. Bradley and his associates expressed willingness to review possible futures for Stratton Hall also. The entire subject will be carried on a future agenda.

The meeting adjourned at 12:00 noon.

Secretary

November 11, 1977
The Board of Trustees met in regular session on December 9, 1977 at 9:00 a.m. in the Board Room, the session having been preceded at 8:00 a.m. by an informational report on the Geological Engineering Department by Professor Joseph Finney, Head.


Absent: Mr. Grynberg.

Also present were President McBride, Vice Presidents Gary, Scott, and Welles, various staff members, and a representative of the press.

Mr. Tucker presided.

ATO House. Chairman Tucker, in order to accommodate the schedule of a student ATO who was present, asked Mr. Stockmar, as an item not shown on the agenda, to bring the Board up to date on the situation with regard to the acquisition by the School of the ATO fraternity house site. Mr. Stockmar reported that the ATO house association had asked for a meeting with representatives of the Board to discuss, without prejudice to current or future negotiations, the School's acquiring the ATO house as part of the site for the new mining building. The meeting occurred on December 8 with representatives of the fraternity, Mr. Stockmar, Mr. Schwartzberg, and Mr. Bradley. Mr. Bradley had attended as an Emeritus Trustee both familiar with the City of Golden and possessed of experience with the acquisitions of the old SAE site by the School.

The fraternity representatives indicated it is without funds or sources of funds; therefore they perceive that if they are required to sell the house to the School at fair market value they will not be able to construct a new house. They feel the School should give them replacement costs, rather than appraised value, which is a difference between $400,000 on one hand and $100,000-$125,000 on the other.

The Board representatives indicated that the Board was bound not only to deal equally fairly with all from whom land is to be acquired but to exercise prudence in spending state funds, hence its restriction to fair market value.

It had been proposed that the present structure be retained by the ATO's and moved to a new location. This was reported to have been explored with 12 moving companies, all of whom said it could not be moved. They are now investigating the matter with another moving company.

In conclusion it was reported that, although the Board and its representatives remain available for discussion, the matter has been returned to the administration to negotiate in the usual way.

December 9, 1977
Student Member. Chairman Tucker said that ordinarily there would be a new student member introduced at this meeting, since he was to receive his degree this month and his term is therefore expiring. He reported there had been some difficulty with the run-off election and that another election will be held in time to provide a replacement for the January meeting. Chairman Tucker introduced the two candidates for the office, who were attending the meeting as guests, Mr. John Hissem and Mr. Steve Ruehle.

Mr. Stockmar, speaking on behalf of the entire Board, expressed to Mr. Tucker appreciation for his insights and his assistance given during his term of office and wished him well in his career. He presented to Mr. Tucker a silver certificate of appreciation.

Previous Minutes. The minutes of the meeting held on November 11, 1977 were approved as distributed.


As instructed at the November 11 meeting and to the point of saving time in the construction of a second dormitory when needed, a flow chart of steps required in the procedure necessary to get a capital construction project contract awarded had been prepared. No time estimates were noted. Upon discussion it was agreed that, assuming the second building to be essentially a duplicate of the one now under bid, little if any time can be gained in advance of decision to build.

New Dormitory Facilities. It was reported that firm estimates indicate that to construct the new facility with solar heating and cooling will exceed the budget. The Board was asked to authorize the total project amount increased from $3,760,000 to $3,960,000 for the purpose of covering bids on the solar heating alternate, with the understanding that the extra funds will come from private sources. A second CCHE approval of the amended application is needed and is expected timely.

Upon motion made, seconded, and passed the Board approved the total amount of the project to be $3,960,000 but retained the option of spending less, as for example by rejecting any and all alternates, at its sole discretion.

Candidates for Degrees. Distribution was made of lists of candidates for degrees as recommended by the graduate and regular faculties at the meetings held on November 2 and November 16, 1977, respectively.

(It is noted that degree candidate, Michael A. Vais, B.S., Petroleum Engineering, whose name appears on the approved list, has not been approved by the faculty due to having been added after the faculty meeting. Trustee approval of this candidate is understood to be contingent upon proper approval by the faculty at its scheduled meeting on December 14, 1977.)

December 9, 1977
Upon motion made, seconded, and unanimously passed, the following were approved for degrees on December 22, 1977, subject to the completion of all academic requirements and continued compliance with school requirements and regulations.

**BACHELOR OF SCIENCE (MINING ENGINEERING)**

- Mark Andrew Balcar
- Scott Blaine Carle
- Paul Eugene Danio
- Ben Brian Massie
- Ralph Lee Nelms
- Jerry Michael Nettleton
- Steven Craig Phifer
  - Richard Dennis Rein
  - Richard Canney Rodriguez
  - Stephen M. Schwartz
  - Robert Michael Taylor
  - Joey V. Tucker
  - John Stephen Voris
  - Samuel Maurice Wiley, Jr.

**BACHELOR OF SCIENCE (METALLURGICAL ENGINEERING)**

- Arturo Jose Rivero Acosta
- Benjamin Victor Clingan
- Robert Donald Deister, II
- Steven "Sandy" DeWeese
- Duncan Lyle Hammon
- John Michael Herr
  - Michael Patrick Kelly
  - Darrell Glenn Mores
  - David Allen Nugent
  - Steven Ivan Olson
  - Mohsen Shahnam
  - Shelley Joan Skopinski

**BACHELOR OF SCIENCE (GEOLOGICAL ENGINEERING)**

- John Benjamin Ashby, Jr.
- Jeffrey Eugene Carlson
- Christopher John Howland Clark
- Barry Linwood Gidman
- David Allen Glater
  - Anthony Pestonatto, Jr.
  - William John Robinson, Jr.
  - David Miles Vardiman
  - David Fredolin Volkert

**BACHELOR OF SCIENCE (PETROLEUM ENGINEERING)**

- Stanley Lucius Atnipp
- Patrick Arthur Cox
- Mark Alain DePuy
- Gregory Alan Drwenski
- Kevin Farrell Kane
- Dean Gilbert Liley
  - Kevin Howard McCord
  - Richard Alan Samonte
  - Michael Anthony Vais
  - John Brent Warren
  - Mitchell Ray Whatley
  - Richard Robert Whitlow

**BACHELOR OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)**

- Gholam Reza Baghai-Vaji
- Sheldon Thomas Edwards
- Peter Raymond Pawlak
  - Mohamed Youse Shawch
  - Richard William Szeppe
  - Steven Kent Westendorf

**BACHELOR OF SCIENCE (GEOPHYSICAL ENGINEERING)**

- Dennis Rigg Cahill
- Robert Edward Crowder
- Walter Henry Fulroth, Jr.
  - Paul Everett Harness
  - David Hall Waters

**BACHELOR OF SCIENCE (MINERAL ENGINEERING MATHEMATICS)**

- Bruce William Colgate
- Garron Morgan Woodruff

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BACHELOR OF SCIENCE (MINERAL ENGINEERING PHYSICS)
Scott Buckingham Anderson
Kevin Thomas Dickson

BACHELOR OF SCIENCE (MINERAL ENGINEERING)
James Craig Atkinson
Jason Charles Hauck
Bruce Elwin Mauer

MINERAL ENGINEER
Sheldon Thomas Edwards

MASTER OF SCIENCE (MINING ENGINEERING)
Carlos A. Alves
David Wilton Aschom
Glenn Lee Krum
Collin Lee Stewart

MASTER OF SCIENCE (METALLURGICAL ENGINEERING)
Daniel Wayne Elliott
Carmelio Augusto Goncalves
Stephen Edward James
Howard E. Janzen
Erol Ozencoy
Gary N. Reser
Donald David Schwemmer, Jr.

MASTER OF ENGINEERING (GEOLOGICAL ENGINEER)
William A. Skelly
Linden Earl Snyder

MASTER OF SCIENCE (GEOLOGY)
Michael L. Hendricks
Robert John Kline
Warren Stephen Lewis
Diane Eileen Westfahl

MASTER OF SCIENCE (GEOLOGICAL ENGINEERING)
Gary R. Hecox
Mohammed Vali Yousefpour

MASTER OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)
Miloud Abdu-Salam El-Arabi
Eugene A. Fritzler
Margarita DeLas Nieves Gallego
Glenn Curtis Gardner
Mukesh Kumar Gupta
Muhammad Ahmad Ali Hasanain
Carol Jean Payne
Raj Sharma
Phillip Dean Smith
Carlos Omar Zerpa P.

MASTER OF SCIENCE (GEOPHYSICS)
Steven Ralph Chilcoat
Vicki Cowart
Omar Perez

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MASTER OF SCIENCE (GEOPHYSICAL ENGINEERING)
Jose Manuel Souto Gonzalez
Dean David Hans Stoughton

MASTER OF SCIENCE (CHEMISTRY)
Alonza H. Love

MASTER OF SCIENCE (GEOCHEMISTRY)
Robert James Candito
Lawrence Jay Holcombe
Robert Austin Landress

MASTER OF SCIENCE (MATHEMATICS)
Roger David Strahl
Lyle R. Wilson

MASTER OF SCIENCE (MINERAL ECONOMICS)
Jacqueline Lang Adair
Manuel Eduardo Alegre
Italo B.F.A. Pilisetti
Leopoldo Garcia Flores
Miguel A. Pena De Los Santos
John Alexander Luther Rense
Marco A. Spirigatis
David Royse Asher

DOCTOR OF PHILOSOPHY (MINING ENGINEERING)
Levent Ozdemir

DOCTOR OF PHILOSOPHY (METALLURGICAL ENGINEERING)
Donald James Kaczynski
Frank Thomas Zurey

DOCTOR OF PHILOSOPHY (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)
Mazen Ahmad Shalabi

DOCTOR OF PHILOSOPHY (GEOPHYSICS)
Daniel Anthony Krygowski

DOCTOR OF PHILOSOPHY (MINERAL ECONOMICS)
Thomas Kevin Tulk
Olusegun Akinyemi Oduolowu

Acceptance of Class. Mr. Stockmar said he had asked
Mr. Schwartzberg to accept the class on behalf of the Board.
Mr. Schwartzberg said he is honored to accept this assignment.

Admissions Report. Dr. Gary, in calling attention
to the admissions report, the first for this academic year,
said it is too early to determine the trend but at this time
applications are running 15 percent higher than this time last
year.

December 9, 1977
Architect for Earth Mechanics Institute Building. Mr. Grynberg, chairman of the architect selection sub-committee not being present, Mr. Coors reported that Mr. Grynberg had made in-depth studies of the three firms under consideration and had recommended to the sub-committee the firm of McMorran Obermeier Goss Bershof (McOG). Mr. Coors and Mr. Wilson concurred in this choice. This selection has to be confirmed through proper state channels, but in the meantime the firm is doing preliminary work on the project.

Upon motion made, seconded, and passed the firm of McMorran Obermeier Goss Bershof (McOG) was approved for the Earth Mechanics Institute Building.

Amendment to Bylaws. With regard to the draft by-law amendment presented to the meeting of November 11 and now up for adoption if desired, Mr. Stockmar said he was of the opinion that there were three additional specific matters which should be mentioned as occasions for executive sessions of the Board. These are (1) selection of commencement speaker pending discussion, invitation, and acceptance by person invited; (2) candidates for medals and honorary degrees; and (3) identities of persons being solicited for gifts.

Mr. Maytag repeated his objection to the "catch-all" phrase "... and any other matter which, if discussed in public, could adversely affect or compromise Colorado School of Mines rights or liabilities."

Mr. Coors suggested the "catch-all" phrase be eliminated, saying that if it became necessary to have an executive session not covered by the bylaws as written, change can be made at that time.

Upon extended discussion and following failure of a motion to adopt a bylaw including the "catch-all" phrase, a motion was made, seconded, and passed to amend the bylaws by the inclusion, with renumbering of the succeeding existing bylaws as necessary, of a new bylaw 8, taking account of Mr. Stockmar's specific suggestions, and reading as follows:

8. Executive Sessions. If a majority of the Trustees present so elect, the Board may enter into executive session, closed to the public, to consider bids, contract proposals, acquisition or sale of property, investments, appointments, honors and other personnel matters, donor prospects, and attorney client communications, provided, however, that no final policy decision or formal action shall be taken, nor shall any resolution, rule, or regulation be adopted, nor shall any action be taken approving a contract or calling for the payment of money at any session which is closed to the general public. The Secretary of the Board shall be responsible for the maintenance of topical minutes of any executive session.

December 9, 1977
Contact with Other Governing Boards. Mr. Stockmar reported that he has initiated discussions with persons on two other boards of control with the request they carry back to their boards the subject of increasing encroachment on the autonomy of our institutions. He said there is no question that other boards are also greatly concerned with this as well as with the master plan on higher education being prepared by CCHE for presentation to the legislature early next year pursuant to mandate.

Mr. Scott reported he has been attending the meetings on the master plan and he was of the opinion that no change in our role is contemplated, and also no change in our governance. He further reported two matters of possible concern: (1) University of Southern Colorado to be designated a polytechnic institution; and (2) some changes in the assignment for governance of USC and Fort Lewis College to different overall boards than now provided.

The administration was instructed to follow the development of the CCHE master plan and to make known when and as appropriate Mines' views.

Alternate Fuel Study. Dr. Gary said that after receiving the report from Stearns-Roger, Dr. Stermole, who teaches in Mineral Economics, had reviewed the report and had made an economic analysis of coal vs natural gas-fired boilers at the School. Considerable discussion ensued on the practicability of converting to a coal gasification or a direct coal burning system.

It was agreed that the School should take the lead in the utilization of coal, perhaps to the extent of pioneering new means of non-polluting coal gasification and even developing an experimental coal mine. Several members of the Board took copies of the Stearns-Roger report to have their professional staffs evaluate it.

JBC Hearing. Mr. Welles distributed copies of information compiled for the hearing before the Joint Budget Committee that afternoon. The figures shown reflect the three high priority items of faculty salary increases of 15.4 percent, additional instructional support personnel, and additional faculty.

President McBride asked all Board members who can to attend the hearing.

The following matters are in addition to those listed on the meeting agenda.

USGS Laboratory Dedication. Mr. Welles announced the date of the dedication of the new USGS laboratories on campus as December 16, at 9:30 a.m. He invited all Board members to attend if possible.

December 9, 1977
Development Program. Mr. Coors announced that there has been a significant breakthrough in local foundation giving in that a second foundation who will be named in a public announcement later, has made a major contribution even though it has never been its practice to give to public institutions. He said this is particularly important in that it paves the way for other foundations to do likewise.

On the matter of soliciting financial support for the American Indian program, Mr. Coors reported further for The Resource Fund Executive Committee that it appeared some appeals had been made, or were about to be made, to persons and firms within the agreed purview of The Resource Fund development groups, to Mines overall detriment should conflicting proposals issue.

Upon extended discussion it was confirmed that the Foundation, under Mr. Maytag's direction and through its Resource Fund personnel, would strictly control all solicitation, including that for the American Indian program, and should expect to focus, for the latter, on foundations and other persons and groups expected to be supportive of such a program even though not otherwise interested in CSM Programs.

It was recalled that the first money raised was intended to hire a director to determine the feasibility of the entire concept.

Quality of Education. Mr. Schwartzberg undertook to discuss with the Board the topic of a possible decline in the quality of education at CSM, a topic which he and President McBride had earlier discussed. His interest in this topic has arisen from not only his own direct experience as a former student and as an employer of Mines graduates but from comments to him made by one or more employers.

Mr. Schwartzberg reported that the problems appeared to lie in the areas of communication skills, which the Board had certainly earlier recognized, and with the tendency to teach the use of handbooks rather than to stress originality and adaptiveness.

Mr. Schwartzberg opined that it should be the business of the Board not merely to hire administrators and to entrust to them the responsibility of developing and maintaining quality but also to interest itself directly in the process by which these things are accomplished.

Mr. Schwartzberg said further that he was coming to realize that the Board had probably erred in assigning to the administrative staff so much detail and reporting work that it was simply unable to discharge properly its quality development and monitoring duties.

Dr. Fogarty indicated his general agreement with the thrust of Mr. Schwartzberg's concerns, indicating not that he felt the quality of the Mines education had declined but he felt it the business of all to concern themselves lest this happen.
In response, President McBride said that it is of course a matter of continual concern to him and to the other members of the administration that the quality of education be enhanced rather than allowed to deteriorate and that he and his associates regret not having more time to devote to such matters, there being always and forever bureaucratic problems and procedures to be solved and satisfied.

Dr. McBride reminded the Board that these concerns will be thoroughly examined in the campus-wide effort to develop a new or reaffirmed profile of the Mines graduate of the future, and that these points will therefore be scrutinized very carefully at the July 1978 Board conference.

Mr. Maytag added to the discussion his view that quality rather than growth should be our primary objective.

Mining Hall of Fame. Mr. Stockmar reported that he has been meeting with representatives of the group interested in the Hall of Fame and has given them rather stringent and very specific requirements to meet in order for the School to lease the property to them. He said they must demonstrate that the venture will be successful before any agreement can be entered into with the School.

The meeting adjourned at 11:45 a.m.

[Signature]
Secretary

December 9, 1977