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Associated Students of the Montana College of Mineral Science and Technology

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This Is Montana Tech …

It is only proper, on this, Tech’s 75th anniversary, to reflect on the past, discuss the present and look to what’s ahead.

In this brochure you will learn more about the history of Montana Tech and the college’s current status. More important however, you will enjoy a graphic view of the plans and visions for Tech’s future.

The goal is to make Montana Tech grow and develop so that it will better serve the students, the community, Montana and the mineral industry of the free world.
Historical Sketch...

The foundation for the Montana State School of Mines was laid in the "Enabling Act" in which Montana, North and South Dakota and Washington were admitted into the Union. This Act made an appropriation of 100,000 acres of public land to the state of Montana for the establishment and maintenance of a State School of Mines. It was on Washington's birthday in 1889 that the "Enabling Act" received the signature of the President.

The development of the mining industry in the years immediately following the Civil War, and especially the discoveries of the precious metals in the mountain states of the West, gave the miner an importance that no other vocation had. In these early days it was easily seen that the mining industry needed a special education in the sciences of ores, their extraction and proper treatment.

With this in mind, the state legislature chartered the Montana State School of Mines on February 17, 1893, with the desire that the school be put into operation as soon as possible. It chose the city of Butte, even then the greatest mining center of the state, as the college's location and appointed a commission of five to prepare plans and specifications for construction of the campus buildings. This commission was composed of F. E. Sargeant, John Gillie, W. W. Dixon, J. H. Leyson and Charles Goodale.
The plot of ground upon which the School of Mines building was constructed is made up of part of the Old Mint Lode, donated by Gen. Charles S. Warren; the Vanderbilt Lode, donated by George H. Casey, Levi J. Hamilton, R. H. Wearing, Joseph R. Silver and Robert A. Day; and the Montrose Addition, donated by Henry Haupt and others.

The School of Mines Building was erected in 1896-97. No part of the expense for the construction of this building was state tax money. Income derived from the land grant was pledged to redeem a bond issue of $120,000 which was sold to construct the building. However, at its session in 1899, the legislature appropriated $26,300 for equipment of the building and maintenance of the school until the close of the fiscal year, November 30, 1900.
The School of Mines opened September 11, 1900. Many young people desired admission, but because of a lack of a preparatory department, four-fifths of the requests for admission had to be refused because of insufficient educational preparation. Thirty-nine students were admitted. According to available statistics, this was still a larger first year enrollment than recorded by any mining college in the nation during the first year of existence.

The degrees to be awarded at the Butte college were Engineer of Mines and Electrical Engineer. No charge for tuition was made to students who were residents of Montana. Students from other states or countries paid a tuition fee of $25 per semester to attend the engineering college.
During its three-quarters of a century, the college has had only seven presidents: Nathan R. Leonard, 1900-08; Charles H. Bowman, 1908-19; Dr. C. H. Clapp, 1919-21; G. W. Craven, 1921-28; Dr. Francis A. Thomson, 1928-50; Dr. J. R. Van pelt, 1951-56; and the current president, Dr. E. G. Koch, who has served since 1957. Dr. A. E. Adami, professor emeritus, served as acting president from September to April in 1950-51 and in 1956-57.

Throughout the 75 year history of the college the name has changed three times. The original name, Montana State School of Mines, was changed to Montana School of Mines, and currently to Montana College of Mineral Science and Technology, one of six units comprising the Montana University System.
Montana Tech campus has expanded from a 376 by 500 foot lot in 1896 to about 25 acres, a prime example of its 75 years of growth and progress. From the original building, the campus has grown to 11 buildings, including classroom and laboratory facilities, residence hall, student union, operation and maintenance units. The original building, Main Hall, was constructed in 1897. It was followed by construction of the Mill Building, 1908; Gymnasium, 1910; Metallurgy Building, 1923; the present Gymnasium Building and the renovation of the old gymnasium which became Engineering Hall, 1925; Residence Hall, 1935; President’s Residence, 1936; Library-Museum Building, 1940; Petroleum Engineering Building, 1953; Operations and Maintenance Unit, 1955; and the Student Union Building, 1960.
Many new degrees and programs have been added to the original degrees offered. Montana Tech is now offering seven undergraduate degrees and nine graduate degrees. Bachelor of Science degrees (which replaced the Engineer of Mines) and Master of Science degrees are now offered in the following fields: Geological Engineering, Metallurgical Engineering, Mineral Dressing Engineering, Mining Engineering, Petroleum Engineering and Engineering Science. A Bachelor of Science degree is also offered in Geophysical Engineering. In addition, Master of Science degrees are offered in Geology, Metallurgy and Mineral Dressing. The Electrical Engineering degree was eliminated in 1902.
From the original enrollment of 39 in 1900, the college has grown to about 600. This includes over 100 women students, most of whom are enrolled in the general course which was established in 1926 for educating students not interested in an engineering degree, but who plan to transfer to another college.

Career goals with majors in chemistry, economics, English, foreign languages, history, journalism, law, the arts, mathematics, physics, political science, psychology and other areas of individual aspiration can begin at Montana Tech. Instructional programs in many career fields permit one or two years in resident study for the fulfillment of initial requirements. Students may then transfer with advance standing to degree programs in other accredited colleges and universities.
The faculty has grown from the original five to the present 54 persons, including the Montana Bureau of Mines and Geology personnel.

The 1919 Legislative Assembly established the Montana Bureau of Mines and Metallurgy as an integral department of Montana Tech, under the direction of the State Board of Education. Later the name was changed to Montana Bureau of Mines and Geology. The function of the bureau is to improve the use of mineral resources through investigation of geology, production, treatment, economics and dissemination of information by publications and replies to individual inquiries. The work comprises field and laboratory study, collection of samples and information, interpretation of data and compilation of statistics on all mineral resources — metallic and nonmetallic minerals, fuels and ground water. Although ground water generally is not regarded as a mineral resource, it is actually a very important one to both agriculture and industry. Several projects are undertaken and continued in cooperation with the U. S. Geological Survey, U. S. Bureau of Mines, other agencies and industry.

World War II, with its unrestricted call-up of young men, provided an interesting anecdote to the college history. Montana Tech was selected by the U. S. Navy Department to train officer candidates under the Navy V-12 Program from July 1, 1943 to October 1, 1945. The college received a mark of commendation from the Navy for effective training.
WHAT'S AHEAD...
Yesterday's visions are today's substance — what we plan today becomes the reality of tomorrow.

There are plans for tomorrow and the college is laying the foundations today so the structure of tomorrow may be realized. The ultimate objective is that Montana Tech shall be a fully integrated university in the higher educational system of the State of Montana.

The initial steps toward realizing this objective are incorporated in the immediate plan recently presented by President E. G. Koch.

The first phase of this plan will be activated in September 1968 by initiation of courses in biological science and accounting. It is hoped that degree programs in mathematics and several of the physical sciences soon will be added to the offerings of the college, together with an inter-disciplinary study program leading to the Ph.D. degree in mineral engineering. These items are the initial steps of the long-range objective.

To realize this objective, Montana Tech must retain, maintain and continually strengthen its present strong professional engineering college. As new engineering techniques and education methods are developed, they will be incorporated into the educational experience of the student.
The emergence of the computer and the development of computer science is a good example. Use of the computer center at Montana Tech is already a vital part of the engineering curricula. An expanded program in this area will be available with the acquisition of a new and larger computer which will be put into operation in the summer of 1968.

Tech plans to build, upon the foundation of the engineering college, other colleges of science, humanities and arts. Excellence in one area can be the foundation for excellence in other areas. The necessary breadth of the educational experience of the future demands that many areas of study be available to the student. The development of any university depends upon the existence of such mutually supporting academic structures.

In the world of today, and certainly in the world of tomorrow, the educated man must have the opportunity to study in many fields. The engineer and scientist can no longer be ignorant of the impact of his profession on human values. By the same token, the student of the humanities must be aware of science and technology. Studies having an interdisciplinary and even a multidisciplinary approach are the pattern of the day and will be mandatory in the future.
A campus home for this educational program must be planned along with the program. Classroom buildings, research laboratories, office facilities for administrative officers and staff, a library adequate to satisfy the diverse needs of basic educational programs and advanced research, housing for students— all these must be considered in the campus physical plant.

The campus is already undergoing many changes, and more are planned. Through the cooperation of the Alumni Association and friends, the $250,000 Alumni coliseum was recently completed. Other completed remodeling projects include the Library, $75,000; Metallurgy Building, $71,000; and Petroleum Building, $64,000. Projects which are approved and will start in 1968 include Gymnasium renovation, $68,000 and Physical Plant Building, $200,000.

The Student Union Building addition and the Residence Hall renovation are proposed projects of $500,000 and $300,000 respectively. Also in the pre-planning stage is a new Mining, Geology and Mineral Dressing Building, estimated to cost $1,571,000.

The 13 buildings that represent the physical campus of Montana Tech form a generally satisfactory relationship between major use areas, even though the original campus has grown as needed and without a general view to future development or expansion.

In order to meet the complex and increasing needs of Montana's expanding student population, the nation's technological advances in the mineral sciences and industry's highly skilled engineers, it is necessary that the college increase in extent its existing facilities and develop new ones. This must be done in an orderly manner.

Under the sponsorship of the Alumni Association, a concept for a campus of the future has been developed which establishes the guidelines required for logical growth and expansion. In addition,
more detailed planning is being coordinated with the Montana Commission for the Higher Education Facilities. This includes facility planning for the entire Montana University System through 1985.

The campus plan envisions two major campus use areas – the redeveloped South Campus and creation of a North Campus. Within this major core, specific units such as academic, residential, research and athletic facilities are selectively zoned so that the whole campus forms a cohesive and functional relationship. The proposed plan is outlined in the architectural drawing contained on the next page.

Existing campus expansion, with the exception of residential units and athletic facilities, has been confined to the existing South Campus.
Future expansion will be directed primarily toward opening north and west vistas of the campus. The expansion outlined in the plan will follow a logical pattern of development.

A total of 11 new buildings, excluding those which will comprise the proposed Research Complex, are outlined in the campus plan. Seven of the present buildings will be removed as expansion develops to make room for new structures and to open up the campus, giving it special quality. The relationship of new buildings to existing structures will be combined to form malls, plazas and open courts on the campus. Such plazas and courts are basic considerations in the creation of a pleasing environment. These future plans call for a pattern of vertical rather than horizontal growth. High-rise dormitories already are a part of the skyline picture of universities. Such a development may well be part of the picture. Landscaping and beautification must go along as an integral part of this process to provide an attractive campus.

The campus plan is not a final statement of development, but a flexible guide that offers logical direction for the expansion that must come if Montana College of Mineral Science and Technology is to maintain its international reputation as a positive and constructive force in the mineral industry.

Initial steps have been taken to provide development funds that supplement state appropriation. In December 1967 the Montana Col-
The College of Mineral Science and Technology Foundation was chartered to solicit and receive grants, gifts, bequests, and funds from any source. One objective of the foundation is to establish endowment funds to augment state funds and thus accelerate the growth rate of Montana Tech.

In the past 20 years, the research effort at Montana Tech has increased by 1,000 percent, measured in terms of dollars available for research support. There will be no decrease in this rate of growth in the foreseeable future. Sophistication in research is costly, and the research funds obtained by the foundation will provide the means to support this necessary facet of the educational program of the college.

Also, because of the intense interest and desire of the community to further the growth and development of the college, local citizens and businesses have joined together and formed the Montana Tech Booster Club and Century Club.

For 75 years Montana Tech has been an outstanding servant of this community, state, and nation in supplying well-trained engineers for the minerals industry. What happens in the next 75 years depends upon the vision to the future. Montana Tech cannot survive with limited objectives. It is thinking big and planning big!