**Elmo Golightly Harris 4th Director 1891-93**

Born June 27, 1861 Spartansburg, South Carolina

Graduated from University of Virginia in 1882 with the degree of Civil Engineer

Worked as an engineer in South Carolina, then worked in engineering fields in Mississippi,

Arkansas, Texas, Alabama, and the Indian Territory (Oklahoma). He was the city engineer for Little Rock, Arkansas and surveyed for different railroad lines in several states.

While working with pneumatic caissons for constructing foundations for a railway bridge crossing the Arkansas River at Rob Roy, Arkansas, Harris discovered by accident the principle which he later embodied in the “Harris Air Lift Pumps.” Through the use of compressed air, water was literally blown out of the well.

In 1890 Harris married Miss Zoe Barrow of Little Rock Arkansas. They had four daughters, Jean, Zoe, Dixie, and Emily.

Harris was a close friend of Director Echols of MSM from college at University of Virginia. When Echols resigned in 1891, the Board of Curators chose Harris to take over as director.

Departments: divided instructional work into departments instead of schools. Departments of Engineering (includes civil, mining, and mechanical), Chemistry and Metallurgy, Mineralogy and Geology, Mathematics, and Physics.

Professor Harris taught with the aid of Thomas Grayson Poats the courses in Engineering and Engineering Drawing

Professor Drake left the school and was succeeded by Thomas Lewis Rubey as Instructor in the Academic Dept and Secretary to the Faculty. Professor P.J. Wilkins continued as Instructor in the Preparatory Dept. Cuthbert Powell Conrad took over the professorship of Chemistry and Metallurgy from Dr. Chase Palmer and Arthur J. Stewart. Conrad only stayed one year, then W. H. Seamon took over. Daniel C. Jackling became Assistant to Seamon. Professor W. B. Richards continued as Professor of Mathematics and was assisted by Fayette A. Jones and Clifton B. Spencer. Dr. A. L. McRae came to MSM in 1891 and became Professor of Physics. McRae later became the director of the school from 1915-20.

School advertised as a “School of Technology” but Harris as other directors before him felt that the school’s curriculum should not be limited to the teaching of mining and metallurgy only – should be a full educational field of general engineering and technology.

Curricula during the Harris years included Mining; Civil Engineering; Mechanical Engineering; Chemistry and Metallurgy; and Mathematics and Physics. Academic Course was maintained and there was a provision made for “short” two year diploma courses in Assaying; Surveying; and Electricity. The Preparatory course and Department were discontinued during the 1892-93 year.

The engineering curricula, which from 1871 to the summer of 1892 had been three-year courses, were now made full four-year courses. In the 1892-93 year the practice of awarding the professional degrees of Civil Engineer and others of this kind was discontinued, changed to a Bachelor of Science degree. Electrical Engineering was taught in the School of Mines in a very definite way, beginning with the Mathematics-Physics curriculum of the Echols administration, established first in 1899 and continued during the Harris administration

The 1891-92 year, Miss Sallie Millard was registered as a resident graduate student, possibly the first the School had.

Problems – A disagreement between Harris and some of the faculty, led by Prof Seamon, created a controversy about the type of building needed on the campus. Prof Seamon convinced the Board of Curators and legislature to build a mining and metallurgy building. Director Harris wanted an engineering building. Harris resigned as director in June 1893 because of lack of support from the Curators and Prof Seamon’s underhanded methods of getting his own way.

Achievements – Prof Harris requested and was granted the position of Chair of Engineering. Adopted a 4 year course of study with a B.S. awarded in each separate branch of engineering and science. Enrollment improved. A Chair of Physics was established. Athletics took a step forward. He was a master researcher and master teacher, his career at MSM spanned 40 years of service as director and Professor of Engineering and Civil Engineering. In 1928 the Board of Curators approved the naming of the new Civil Engineering and Hydraulics Laboratory Building Harris Hall.

The campus plan included the Main Building (Rolla Bldg), the Physical Laboratory, the Chemical Laboratory, The Mining and Metallurgy Building, the Library, and the Club House – student dorm

Fees – entrance $10, library fee $2, $10-15 for Chemical Laboratory usage, board $12-16, expenses - $140-200/year

Athletic field enclosed and graded, athletic association

Two literary societies – The Phil Literary Society for men and the Alpha Club for women

To pass the course requirements the students had to maintain a 75% grade

Monthly reports sent to parents or guardians showing the students progress