MISSOURI ALUMNUS

MAY-JUNE 1972

IN 3 SECTIONS

The Communications . . .

Committee, the Alumni Association group that recommends policy for the *Missouri Alumnus,* listened to a student panel this spring and said, "We need more of that." They thought some more and said, "The *Missouri Alumnus* needs more of that, too. Our readers want to know what the students think."

A new feature, therefore, begins in this issue of the *Alumnus,* a student view column written by a student. Chip Casteel's views on the new professionalism in student government begins on page 17. Each succeeding *Alumnus* will feature a different student writing about a different topic.

Now, Ye Olde Ed is well aware that no single student speaks for all 22,000 others on the Columbia Campus. But he has established some ground rules that he hopes make sense: (1) the column must be interesting; (2) the issue written about must be of concern to a large number of students; and (3) the writer must have done his homework; he must know what he's writing about.

We hope the new column sparks considerable comment from alumni. Please write.—SS

MISSOURI ALUMNUS

VOLUME 60 NUMBER 5
MAY-JUNE 1972

The *Missouri Alumnus* is published five times a year—September-October, November-December, January-February, March-April, and May-June—by the Alumni Association of the University of Missouri-Columbia, 305 Jesse Hall, Columbia, Missouri 65201. Steve Shinn, editor; Anne Skelton and Sue Hale, associate editors; Harlan B. Kirgan, staff photographer. Designer, Paul Fisher, professor of journalism. Second class postage paid at Columbia, Missouri, and at additional mailing offices. Annual membership is $5.

Flying at the entrance to University Hall, the four-campus administrative center, flags of the United States, the University and each campus give graphic evidence of the Board's concept of one university in four places.

New Beginning for Role and Scope

By Steve Shinn

When the tentative version of campus role and scope was released last December, almost everyone got hung up on geography. Disciplines were being meted out to the four campuses. The Columbia campus apparently was going to lose many of its doctoral programs. Oh, there was a long preface explaining the rationale for all of this, but it generally was glossed over in favor of the more pressing —and controversial—geographical implications.

Now, there's a new, official document—minus any specific geographical assignments. They will come later. This paper, "The University of Missouri: Its Future," deals with the basic policies and guidelines for role and scope decisions.

Geography again is important, however. The paper makes it obvious that the University's goal is to break down geographical barriers, to allow the easy transfer of students from one campus to another, to encourage faculty on one campus to work closely with the faculty of another, to create programs on one campus that complement and enhance programs on another, to truly make—as the paper says—the "University of Missouri. . . a single institution with four campuses, each of which is a component of the whole."

This, of course, is what the Board of Curators has been saying for the past six or seven years, and the one-university philosophy underlay the tentative role and scope paper, as well. But there are a couple of important differences between the December and May versions.

Undoubtedly, the key section in the final paper is the center concept for the administration of all doctoral programs. One campus—or in some cases more than one if the justification is sufficient—will be selected as the administrative center for the PhD training in a particular discipline. But qualified faculty from all campuses will be involved. The Rolla campus, for example, has never offered, and probably would never offer, a doctorate in history. But its College of Arts and Sciences could well have an historian qualified to direct a doctoral candidate. Under the center concept, he could do so, thus broadening the opportunities for both faculty and students while still conserving the University's resources.

This "new and innovative administrative structure" may not be as clear as it seems, however. On May 12, the Columbia Campus faculty council issued a statement in which it unanimously endorsed one "interpretation" while disagreeing sharply with another. "If," the statement read, "the 'administrative center' represents the location of the head of a committee that is charged with the coordination of several doctoral programs in related areas on different campuses, we endorse the approach." But, if the "concept implies single university-wide doctoral programs in given fields, we disagree strongly. We feel that it is imperative that doctoral programs have campus identity."

The other big change from the tentative document is in the timetable for making the geographical role and scope decisions. Now, they are to be made only after the program evaluation portion of the institutional reappraisal effort. This was one of the changes requested by the Columbia Campus administration and faculty. These evaluations make use of teams of experts from outside the University to help with the assessments. Already, appraisals have been completed in seven areas: physical sciences, engineering, biological sciences, psychology, mathematical sciences, education, and professional health sciences. These areas contain the most duplication among the four campuses and include many costly graduate programs, as well.

Although seven areas have been evaluated, President C. Brice Ratchford has emphasized that no role and scope assignments would be made "while students and faculty are on summer vacation."

That means that the earliest announcement of any role and scope decisions will be September. Others would then follow the completion of the other evaluations for the rest of the disciplines. Role and scope, therefore, is likely to be announced in a piecemeal fashion, rather than at one time.

The document approved in May is, Ratchford says, "the product of countless hours of discussion and innumerable written communications stemming from the tentative version of role and scope." It is truly a Board-Ratchford document, as the Curators took an active part in editing and wording the final paper.

In Section I, in which the University's "unique responsibilities" are explained, the document says, "As a land-grant university, it should continue to subscribe to the basic land-grant philosophy, that

is, to provide quality programs for Missouri students who have the academic ability and motivation to profit from a university-level education, regardless of the economic status."

The next section outlines "basic academic policies," and the final one offers "Guidelines for Academic Planning." The guidelines are the meat of the document and are printed in full below. Most guidelines are followed by an interpretation of it.

●Within its designated role, each campus shall propose an Academic Plan for carrying out its responsibilities. The academic organization for carrying out program objectives may be non-traditional.

(Academic plans will come after the role and scope decisions. Traditional academic organization involves setting up a department for each traditional discipline, i.e. English, history, zoology, etc. Non-traditional organization involves grouping certain disciplines for more efficient administration. The new Biological Sciences Division—made up of zoology, botany, and microbiology—is an example of a non-traditional organization on the Columbia campus.)

●A major concern is quality of instruction at both the undergraduate and graduate levels.

(Nothing new here; like Motherhood and Apple Pie.)

●It is imperative that each campus, division, and department work jointly in devising new teaching-load policies.

(One thing to be considered is the proper balance between the teaching/research/advisement responsibilities of faculty members. Another consideration will be a systematic way to measure work load. How much are classroom hours worth in relation to advising a student on a thesis? In relation to research? Now, some departments have different requirements for the teaching faculty. Some teach as little as six hours if they also advise doctoral candidates; others teach 12. An attempt will be made to standardize these procedures consistent with special requirements of particular disciplines.)

●Although the University must provide students with wide opportunities for baccalaureate and appropriate masters' degrees, the offering of doctoral programs will be more limited. The nature of the programs, the availability of resources, and the general needs of society will determine the number and design of the doctoral programs.

(This just about assures fewer doctoral programs throughout the University of Missouri. When institutional reappraisal began there were some 90 PhD programs being offered on the four campuses, two-thirds of them at Columbia.)

●As programs are initiated, enlarged, terminated, combined, or reduced, other programs may be affected and appropriate adjustments made. For example, service-teaching requirements now imposed on certain departments may be diminished or increased as a consequence of new policy.

(Service-teaching requirements simply means those areas that teach students who are not majoring in those particular disciplines. For example, chemistry is taught as a "service" to engineering students. Geology is taught many students who need a physical science requirement, but who have no thought of majoring in any earth science.)

●As each campus creates its Academic Plan, programs which have proven national distinction for excellence and for which there remains a significant justification will be recommended for continuation even if they are peripheral to the assigned responsibility of that campus.

(The 1971 Roose-Andersen report on graduate programs rated three Columbia Campus programs as "good"—physiology, zoology, geology—and these might well be kept, regardless of the final role and scope policy. Roose-Andersen did not look at all graduate programs; there were other weaknesses in the report; and there are other ways to rate programs. But that is an example.)

●The Academic Plan of each campus shall embody the principle of combining or integrating similar programs.

institution will the University truly thrive."

(Just this spring Chancellor Herbert W. Schooling established a Chemical Science Council on the Columbia Campus to foster cooperation among the departments of agricultural chemistry, biochemistry, chemical engineering, and chemistry.)

●Interdisciplinary programs which now exist through cooperation of departments on a single campus should be more broadly developed.

●Interdisciplinary programs involving cooperation among departments or divisions on different campuses also are encouraged.

(The Columbia Campus, with its broad offerings in many disciplines, long has been active in multi-disciplinary work—programs in nutrition, the environmental sciences, and bioengineering, for example. See "The Computer that Analyzes X-Rays" in this issue of News from the Divisions. Increasingly, such work also is being done on an inter-campus basis—space sciences and trace substances are a couple.)

●The need for specialized facilities must be taken into account as the Academic Plan for each campus is developed.

(The Columbia Campus has relatively new buildings for geology, chemistry, math sciences, and physics. They were designed for the particular needs of those disciplines, and an observer would have to assume that it would be likely that they would continue to be used for them.)

●Doctoral programs will be offered through a new and innovative administrative structure which for a particular discipline will involve the qualified faculty of that discipline from each of the campuses. This concept will broaden opportunities for student and faculty participation and conserve resources. One campus will be selected as an administrative center for a particular discipline or a specialty within a discipline. While there normally will be a single center for each discipline, there may be more than one if there is sufficient justification.

(This guideline, probably the most significant of all, was discussed earlier in the article.)

●In the creation of doctoral administrative centers the Academic Planning Council shall be responsible for designing and recommending a plan of operation which includes selection of faculty, faculty responsibility, academic and fiscal management, and quality control of programs. The Academic Planning Council consists of the four Chancellors and the Vice Presidents for Academic Affairs, Administration, Extension, and Research.

(This apparently puts the responsibility for all doctoral programs at the University-wide level, leaving campus graduate deans with the administration of master's programs. If so, Columbia faculty council again disagreed: "If fiscal management is administered through a university-wide doctoral program, rather than through the regularly accountable campus, division, and department structure, the assignment of authority and responsibility will be intolerably confused.")

●Every campus and university-wide unit will be assisted in finding ways to use existing funds more effectively. This objective may best be achieved by reducing programs in which there is inefficiency or by eliminating those programs and services which may not be crucial to the University Academic Plan or which have low priority in light of current and prospective needs of society. Funds retrieved in this manner, along with added monies, shall be used in the improvement of the University's academic programs.

(The first sentence is a euphemism for, "There's going to be a tough review of all expenditures, and rigorous justification will be required before expenditures are approved." This review will start at the top and is designed to induce closer scrutiny at the campus, divisional, and departmental levels, as well.)

●The Academic Planning Council will be the major advisory group to the President in the implementation of the University Academic Plan. The Inter-campus Faculty Advisory Council will serve as the University faculty advisory group on these matters. This group consists of three faculty members elected from each campus. Also, at the discretion of the President, an inter-campus student advisory group may be established for purposes of consultation. □

Ritual and ceremony still were a big part of Commencement '72, but there were changes. More and more,

Pomp Gets Personal

By Anne Skelton

Janus is a Roman god with two heads. One looks forward and the other backward. He is an apt symbol for graduation/commencement.

Graduation is an ending and commencement a beginning, or so Webster says. Students, parents, faculty, administrators and speakers looked both into the past with nostalgia and into the future with hope as they took part in the activities on May 14-16 on the Columbia Campus.

One student described graduation as "The period at the end of a sentence of my life's story." Another student, throwing his arms wide open said, "It's big doors opening. Things really starting to happen. A career, marriage, life."

Both of these students attended graduation/commencement activities. Many students did not. For some happiness was "Columbia in a rear view mirror." They had their cars packed and waiting, and, after they had finished their last final exam, they drove away.

Officials estimated that fewer than half of the eligible seniors attended the main commencement at Memorial Stadium. The percentage of master's degree recipients attending was even less. "They've been through it before," Chancellor Herbert Schooling says.

Administrators agree that interest in graduation/commencement activities is fading. Schooling gives some reasons.

"As more students have parents who are college graduates, neither the students nor the parents attach the same significance to the ceremony. Also, many students are not in school a straight four years. They are in and out of school in the service or working. They don't associate with a particular class that they want to graduate with. You'd have to say, too, that there just isn't the same interest in anything formal and traditional.

"The doctoral graduates attend pretty well," Schooling says. "Perhaps they come because their wives have sacrificed a good deal trying to get to that point. They themselves have spent many years and much effort. And a PhD or EdD means quite a bit still."

"I think we've done everything to make commencement difficult and unattractive," Acting Dean of Faculties Clifton Cornwell says. Cornwell was in charge of the commencement arrangements.

Mommy and Daddy are new MDs,
but Jennifer, at age three months, is unimpressed.
Drs. Jay and Sue Marshall

Ritual often means a walk — to the grave, down an aisle, into a future.

Originally set for B&PA auditorium, B&PA awards ceremony moved outside at students' request.

"There is over-all a great interest in doing something about commencement to make it a more meaningful academic festival. The parents, and sometimes husbands and wives, have invested their treasure and their care in the students. They need to be rewarded. It needs to be direct, personal and informal. Now it is masses, rigamarole and ceremony. Commencement a year from now is going to be different."

A four-campus committee met this spring to discuss University commencements. They agreed that formal ceremony is often viewed by students as "establishment" and ritualistic. Second, they agreed that college commencement (particularly at the baccalaureate level) has ceased to be the culmination of family dreams and hopes as it was in an earlier day when fewer members of a family and community attained the goal. They said that attainment of the BA degree apparently is about equivalent to getting a high school diploma 50 years ago. Third, they agreed that many students reject the diploma as having only sentimental value. The document they use when they are seeking jobs is the transcript. Also as the degree decreases in value, the diploma which indicates the degree also has less value. Fourth, personal feelings of pride and accomplishment, the committee said, have been lost in the effort to cope with the large number of graduates.

The Columns were a favorite spot for picture taking and hijinks.

The committee's most urgent requests are for student involvement in future planning and for a humanizing procedure for the actual commencement exercises in order to establish a more meaningful and personalized ceremony. They recommended decentralization, particularly on the Columbia Campus.

In fact, decentralization already has begun. Many schools and colleges had pre-commencement or commencement activities.

Nurses held a pinning ceremony May 14 in the Medical Center Auditorium. Dr. Ingeborg Mauksch, associate professor of physical medicine and rehabilitation, spoke. Students were involved in planning the ceremony which included a slide show with contemporary music as background.

"There is more emphasis on the pin than there is on the degree," Miss Muriel Leach, administrative assistant says. Out of 40 June graduates, only 10 attended the main ceremony at the stadium.

One who did was Mrs. Frances Wright, a 46-year old grandmother, who enrolled in Moberly Junior College seven years ago. During her three years there, her husband became ill. She transferred to the School of Nursing, commuting daily.

Both her legs were broken in a head-on collision. Doctors said she might never walk again. But walk she did, and she resumed her studies.

"Good nursing care is something people have a right to. I am thankful for the times I've been helped by good nursing and I'd like to help other people," she said.

A senior convocation was held by the College of Engineering May 15 in Jesse Auditorium. Earl K. Dille, a native Missourian and 1950 graduate of the U.S. Naval Academy, told graduates that saving the environment must be implemented through technology, not in spite of it. Dille is executive vice president of Union Electric Company, St. Louis. A reception for graduates and parents was held in the Memorial Union following the speech.

The College of Education held a reception at 10 a.m. the morning of commencement at the Memorial Union for graduates. Faculty, parents and students

chatted, sipped punch and munched cookies.

The School of Veterinary Medicine had a pre-commencement ceremony also at 10 a.m. at the Livestock Center Arena. Dr. William Carlson, president of the University of Wyoming, told graduates "The winds of change keep blowing across this land at ever increasing speeds. It remains for us to tell the difference between the good and the bad, the healthy and the unhealthy."

At Gwynn Hall Lounge at the same time, graduates and their parents met with faculty of the School of Home Economics. A tea table was set with a silver coffee service, a punch bowl and platters of bite-sized rolls and fresh strawberries in pineapple boats.

"It may seem silly to worry about feeding people, but in America food is one way we show hospitality and warmth. It is a good idea, for practical reasons of parking and crowding, to feed people on Campus on the day of commencement, if we can," one administrator says.

"I'm in favor of divisional graduations on Campus while the other students are still here," Dr. Margaret Mangel, director of the School of Home Economics, said as she greeted parents and congratulated graduates on marriage and career plans.

The School of Medicine held a 10:30 a.m. pre-commencement ceremony at Jesse Hall. A luncheon followed at Mid-Missouri Mental Health Center Gymnasium. A dinner had been held at the Ramada Inn on Sunday, May 14 honoring the graduating MDs.

On Francis Quadrangle, B&PA held its awards ceremony. A couple of grandmothers shared an umbrella against the noon sun. Bursts of applause for the honored graduates drifted across the quadrangle.

And for the first time in its 64-year history, the School of Journalism held a separate commencement. Greg Worden, Journalism Students Association president, and a graduation committee planned the event. A majority of journalism students voted to have the ceremony and to wear caps and gowns. The ceremony was held at noon at the Missouri Methodist Church.

Journalism faculty donned academic regalia for the march through the Journalism Arch to the church. For some, it was the first ceremony they had attended in many years. William Bickley, professor, said he had gone to a ceremony in 1935 when he received his master's degree and had attended the main Mizzou commencement only once, when President Harry Truman was honored in 1950.

"There is a trend throughout the country against this kind of commencement ceremony, but somehow Mizzou has caught fire. I don't understand it," Bickley said. "There is a national trend toward informality, and here they voted to wear caps and gowns." He shook his head.

"What's a ceremony in any civilization anyhow but a way to mark a transition, to help people through a change like death or marriage. This our coming of age, our entrance into the world of responsibility and work," Mike Weaver, BJ '72, philosophized.

He was sitting under a tree gnawing a fried chicken leg at the box lunch held after the ceremony.

In still another corner of the Campus, the Graduate School's hooding ceremony was in progress. It took place at the Livestock Center Arena. John Merrill, professor of journalism, who can always be counted on for a pun, said, "What could be more fitting? After all, they've been throwing the bull for several years." To the participants, however, the receiving of the academic hoods was a serious moment.

School of Law graduates received their hoods in a separate noon ceremony at Jesse Hall Auditorium.

At 3 p.m. the 130th Commencement of the University of Missouri-Columbia began. The band played "Pomp and Circumstance," and four columns of graduates streamed across the field from the east side of Memorial Stadium to the west side. The divisional processions were led by student marshals chosen by their respective deans.

A crowd of about 10,000 friends and relatives looked down on the procession. One proud aunt stood at ground level waiting for "her boy" to pass by. As Thomas Schaeffer led the engineers to their places in the stands, "Auntie" snapped a picture.

Baccalaureate and master's degree candidates were introduced en masse. Most stood silently, but the engineers gave a lusty shout that woke a baby sleeping in his mother's arms. He cried throughout the rest of the ceremony.

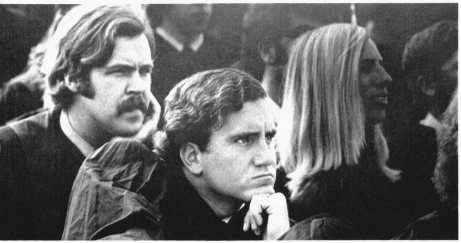
President C. Brice Ratchford told the graduates that they were unique in several ways. He said that the Class of 1972 was graduating after four years marked with turmoil on many other campuses. He congratulated the graduates on "expressing [their] intense feelings" in a more positive way at Columbia.

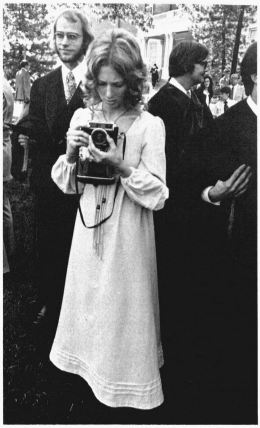
Candidates for doctoral degrees were recognized individually and walked across the platform which had been decorated with red, white and blue flowers.

Dr. Frank Williams, the new president of the Alumni Association, presented three awards. Wil-

(Above left to right) Alumni Association awards were given to Dorothy Sappington Holsinger (Alumnae Fund for Recognition of Faculty Women), William H. Byler (Alumni Distinguished Service Award) and William (Mack) Jones (Distinguished Faculty Award). The Three Honorary degree recipients were Albert Victor Crewe, Marjorie Katherine Carpenter and Herbert Blumer. Introducing those honored was Chancellor Herbert Schooling (right).

(Left) Stopping traffic, journalism faculty and students parade from the arch to the church at their 1st separate commencement.





liam M. Jones, professor of English, received the distinguished faculty award and $1,000. Mrs. Dorothy Sappington Holsinger, assistant professor of physical education, received the $500 Alumnae Anniversary Fund Award. Dr. William G. Byler, retired senior vice president and now consultant to the U.S. Radium Corporation, received the Alumni Association's Distinguished Service Award.

Ratchford conferred honorary degrees on Albert Victor Crewe, professor of physics and biophysics in the Enrico Fermi Institute and dean of physical sciences division of the University of Chicago; Dr. Herbert Blumer, a native of St. Louis who is professor of sociology at the University of California at Berkeley and captain of Mizzou's 1921 football team; and Dr. Marjorie Katherine Carpenter, an alumnae, who is a retired professor of humanities and dean of administration at Stephens College.

Newly commissioned officers in the armed forces were presented. In a reaction to scattered hissing, parents and friends gave the officers a standing ovation as the band played "Anchors Aweigh."

The benediction was pronounced and Commencement 1972 was over.

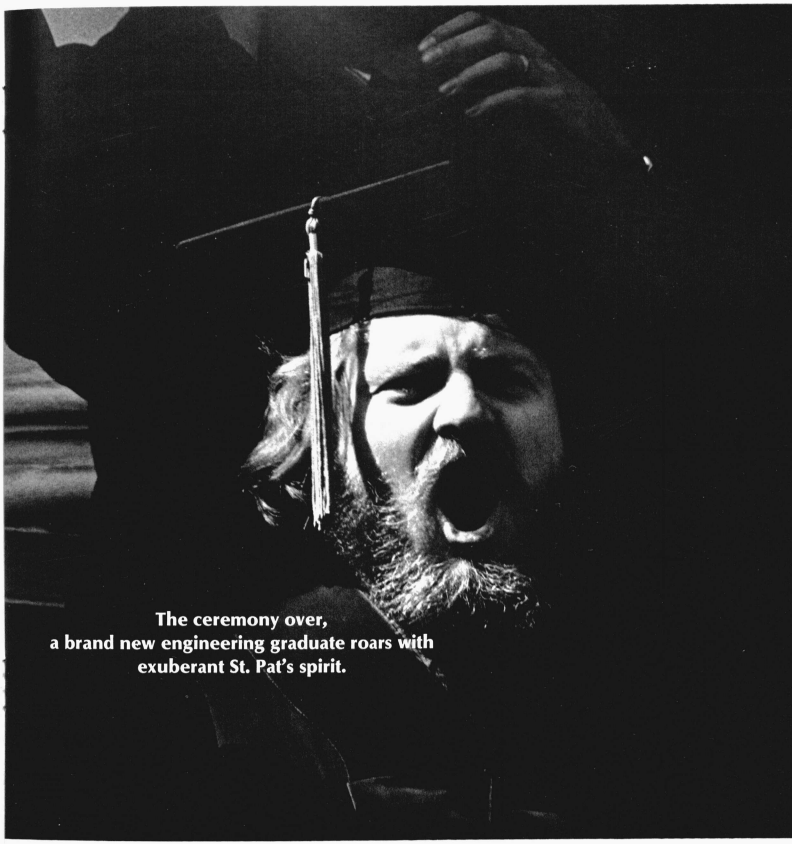
It may never be the same again.

Administrators insist that there will always be a main commencement, but most students "feel graduated" after their divisional ceremonies. It was hoped that the Warren E. Hearnes Multipurpose Building would be in use by commencement time this year. Administrators hoped that it would give more of a feeling of intimacy than the stadium. Cornwell said that they had hoped to have a reception there.

So the place will change next year, but ceremony will remain.

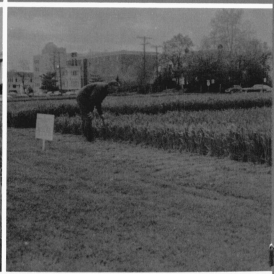
"I think it's important to the institution to identify the significance and importance of higher education to our society," Schooling says. "I am moved by graduations. Every commencement, I see the glow of accomplishment on the faces of parents, wives, husbands. I see children who are very proud of their daddy or mother. All that pride. It recharges your battery."

"We must turn the day into a festival," Cornwell says. "It's such a happy time. People look back at all the fun and the work and forward at beginning their careers and their lives." □



**The ceremony over,
a brand new engineering graduate roars with
exuberant St. Pat's spirit.**

Sanborn




SANBORN FIELD AND
SOIL EROSION PLOT
THIS SITE DESIGNATED A
REGISTERED NATIONAL
HISTORIC LANDMARK
UNDER THE PROVISIONS OF THE
HISTORIC SITES ACT OF AUGUST 21, 1935
THIS SITE POSSESSES EXCEPTIONAL VALUE
IN COMMEMORATING AND ILLUSTRATING
THE HISTORY OF THE UNITED STATES
U.S. DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
1965


PLOT 23
SOURCE
OF
AUREOMYCIN

Sanborn Field, the world's third oldest agricultural experiment field, looks like a misplaced checkerboard of farmland surrounded by city streets and roaring traffic.

By Richard Hood

Aside from a plaque proclaiming the four and one half acres a "Registered National Historic Landmark," a plaque that most passing motorists never see, and the somewhat curious appearance of the field in summer with patches of corn, wheat, oats, soybeans and alfalfa seemingly jumbled together like a squared-off jigsaw puzzle, the field sitting on the eastern edge of the University of Missouri's Columbia campus provides few clues to the impact it has made on the world.

Probably the greatest impact produced by Sanborn was the discovery in 1945 of aureomycin, an antibiotic similar to penicillin, in a soil sample taken from Sanborn Field by Dr. William A. Albrecht, then chairman of the department of soils and now professor emeritus. Aureomycin has been credited with saving millions of persons and animals from death.

Dr. C. M. Woodruff, professor of agronomy and in charge of the field, suggests that major benefits Sanborn may provide in the future include accurate measurement of the polluting effects of insecticides, pesticides and even radioactivity on the soil and plants.

In 1888 when J. W. Sanborn, then dean of agriculture, laid out the original 39 plots of land, each one tenth of an acre, he intended that the field would provide valuable information for agriculturists concerning the effects of crop rotation, fertilizing with manure and using the then relatively new concept of fertilizing "chemicals." In an era when pollution of the environment was not the international issue it is today, he could not have foreseen that soil samples taken from the field at regular intervals since 1888 would give scientists today an accurate gauge by which to measure the effects of radioactive fallout on the soil and on plant tissue grown there.

Leaning back in his chair and puffing in sporadic bursts on his pipe, Woodruff traced the history of Sanborn Field:

"It's the third oldest field of its kind in the world. The first such field was set up in 1843 at Rothamsted, England. The second was at the University of Illinois at Urbana in 1876."

Eyes lighting with interest in his subject, Woodruff describes the way researchers at Sanborn Field have discovered fallacies in agricultural theories at the time the field was established.

"In the early days, they considered crop rotation better than continuous cropping. At Sanborn Field it was discovered that any practice that increases crop yields without replacing the elements removed, hastens the rate of soil depletion."

Albrecht phrases the principle this way:

"You can walk a horse or run him. In the end, you will wear him out."

"We also discovered," Woodruff continued, "that when you grow clover for hay, you damage the soil at a faster rate than do grain crops because with clover you are hauling off the whole plant including minerals that need to be returned to the soil. With grain crops most of the minerals are returned to the soil in the plant residue.

We found out that we could grow clover for hay and get good initial results, but later clover failed. Cowpeas would grow where clover wouldn't, and we kept going down the ecological scale. Lespedeza would grow where cowpeas wouldn't. By the time lespediza would no longer grow on the land, it was fit for nothing better than broom sedge."

It had been thought that the deeper a farmer plowed and the better he cultivated, the better his crop would be. Sanborn Field demonstrated that this method also speeded soil depletion.

"The most important thing we've learned from Sanborn Field is that you have to put back into the soil what you take out of it," Woodruff says. This is done by analyzing the soil, determining what chemicals are lacking and adding them.

Tests at Sanborn Field have established the proper method of irrigating crops in Missouri, and other tests are now being run to check the "no tillage concept" of planting corn directly through a grass or grain crop cover to prevent erosion.

Analysis of Sanborn soil also gave clues to the rate of decomposition in the soil of organic matter and paved the way for soil testing which provides an accurate measure of the amount and types of fertilizers needed in a particular field. Experiments with flourescent lights shining beneath the leaves of growing plants and other tests on the optimum number of plants per acre and the ideal width of rows have also proved beneficial to Midwest farmers, Woodruff says.

Dr. George Smith, director of the Water Resources Research Center and former soils department chairman, says that the layout of Sanborn Field, which provides opportunities to examine identical crops growing under varying but controlled conditions, "have pointed to the potential for rejuvenating worn out soils. The 14 plots which have been kept with no change for the 84 years of Sanborn's existence demonstrate what happens with poor soils management and how good soils management can provide "ample food production for future generations through the application of proper practice," Smith says.

His eyes taking on a faraway look and his gray hair gleaming like a biblical prophet's, Woodruff disclaimed special clairvoyant powers for the men who have maintained Sanborn Field since 1888:

"We can't foresee what lies ahead in agriculture. But when problems have developed at Sanborn, we've been able to identify them and work to solve them. Over the years we've incorporated the best improvements in agricultural technology. We're using the latest hybrids and varieties of crops. We've learned we can effectively move our corn rows in from 42 inches apart to 30 inches and increase the number of plants per acre from 8,000 to 22,000. We've also learned how to maintain good stands of alfalfa by returning potash to the soil after each cutting."

Smith says that one of Sanborn's most wide-ranging benefits is probably the students at Mizzou who use Sanborn soil samples in courses in soil fertility and soil microbiology. He contends that the interpretations of these experimental results develops knowledge of basic and applied principles "that cannot be gained in any other university or at any other agricultural experiment station in the world."

And Albrecht, whose name is linked with Sanborn's greatest contribution to date, declares his doubt that any other plot of land, comparable in size on the face of the earth, has produced as much genuine knowledge and wisdom for humanity's use in combating physical suffering and hunger "as have the hallowed acres of Sanborn Field." □

STUDENT VIEW

is the campus really quiet?

Two years ago, tragic student deaths at Kent and Jackson State Universities and a subsequent wave of college protests rocked the nation. Yet, students returned to school that fall with only their textbooks and a sullen sense of tranquility.

There were "hidden issues" in those protests, however, which remain even today and will not go away so easily. Although the campuses are relatively quiet, student frustration with internal University affairs and their accompanying search for reform, present the institution with battles that are far from over.

But the campuses are no longer in turmoil. Why?

I submit that a "new breed" of student leadership has emerged on our Campus and around the country. It is not like the co-opted generation of years past, but it is also not like the spontaneous and temporary protest leadership of the late 60's and early 70's.

This new breed is composed of hard-core student activists who might better be termed "quasi-revolutionaries." They do not favor complete upheaval and destruction of all that we now have in the University or society; yet, they are dedicated to change, and will pursue it vigorously, over a period of years, if necessary.

These new student leaders are professional, often working 40 to 60 hours per week while still carrying regular course loads, and often receiving salaries. They are trained in the ways of student government and the ways of the University before they even begin serving in office, and they will train their successors in kind.

Besides being professional, this new leadership stands ready to use demonstrations, as well as more sophisticated political and economic pressures when forces within the University are so resistant to change that opening such new channels of communications becomes necessary.

And this new leadership has at last discovered a new ally that has been there all along: the law. Student attorneys have sprung up around the country.

One use of the law at which the UMC student government excels is the establishment of corporations. The student government is itself a corporation; it owns a subsidiary student services corporation, the Missouri Students Store; it helped form an incorporated student lobby in Jefferson City; and, it plans more and more corporate expansion in the coming years.

Students use the law to prosecute unfair business practices, including consumer protection cases and disputes with landlords. And, most recently, students have used the law to achieve voter registration rights.

The new student leaders know that to be effective, they must have "done their homework" regarding any particular issue. Even then, the going may be slow if many groups are involved in the proposed changes (i.e. faculty, administrators, curators, alumni) or if the changes deviate greatly from the status quo.

These new and dedicated student leaders, therefore, are making demands upon the University which it must meet. It must meet them not only because they are well-researched, realistic, and widely supported by students, but also because of two broad socio-political factors.

First, the University is perceived as a model leader and problem-solver in our democratic society. It must, therefore, "take care of its own backyard" if it is to maintain credibility with the alumni and Missourians who support it.

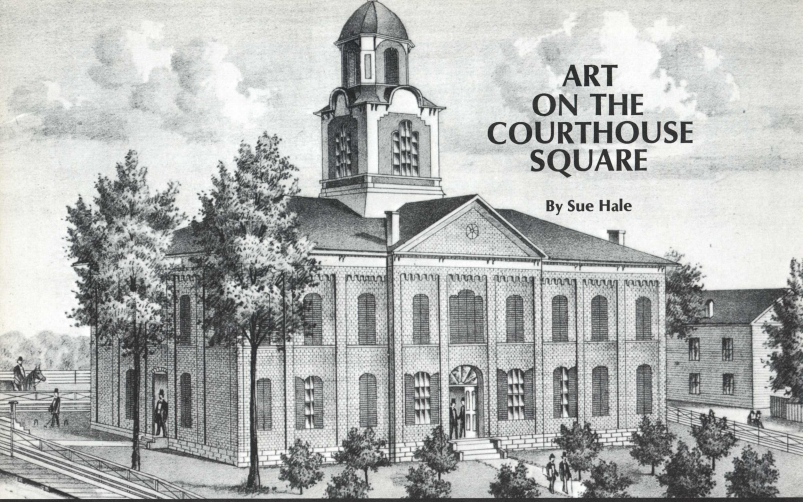
Secondly, the University must better prepare its students not only to function in the society around them, *but to improve it.* Therefore, it must allow its students increased ability to grow not only academically, but socially as well.

Putting all of these various factors together, then, leads to a constructive student power which should not, and cannot, be denied. — *Chip Casteel.*

The immediate past president of the Missouri Students Association, Chip Casteel graduated this spring with a degree in public administration, plans to study law.

ART ON THE COURTHOUSE SQUARE

By Sue Hale



Atypical in the sense of not being located on the square, the Gasconade Courthouse at Hermann has a picturesque, hilltop setting.

Osmund Overby, art history professor, (at left), and Glen Hartley, student, survey the courthouse at Jefferson City.

The students gathered outside the entrance to the Cole County Courthouse. They examined the textured stone masonry, commented on the carved ornaments and took notes about the windows, walls, towers and arches. Inside, they stood in the middle of the courtroom, critically eyeing the lowered ceiling, discussing the lighting, and speculating on the ages of the wooden door frames. The field trip was one of the last meetings of a graduate seminar in American architecture under the direction of Dr. Osmund Overby, associate professor of art history on the Columbia Campus. The members of the seminar, all art history majors, had spent the winter semester studying more than 100 Missouri courthouses.

Art history is moving more and more in the direction of monument conservation, Dr. Edzard Baumann, chairman of the art history and archaeology department, says. It is another field open to graduates besides teaching, museum work, or archaeology.

The art history and archaeology department, generally considered to have one of the better doctoral programs on Campus, is sponsoring three excavations in Europe this year. The digs are located in Tel Anafa, Israel, Philius, Greece, and Titelberg, Luxemburg. The department also offers a museum training program in cooperation with the Nelson Gallery in Kansas City, and has sent students to study at the Victoria and Albert Museum in London and the American School of Classical Studies in Athens.

In the conservation field, the American Architecture seminar this past semester offered exposure to fundamental methods of monument preservation, Overby says. "The students were fortunate to be able to work closely with the Missouri State Park Board Historical Survey Office in Columbia."

"First the students researched the basic facts on each courthouse, the building date, architect, later physical alterations, etc. We then categorized the buildings according to styles and the architectural movements that influenced them."

For example, he adds, the Cole County courthouse, built in Jefferson City in 1896, is typical of the old Richardsonian Romanesque Revival style. There are approximately 12 Missouri courthouses of this type. But, the Cole County building, dating from the middle of the period, is perhaps as good an example of this style as there is in the state.

Cole County Courthouse, Jefferson City

There has been little architectural history compiled in the past about Missouri courthouses, Overby says. So, in addition to providing a lot of information about the courthouses, the seminar has enabled the students to interpret the buildings themselves, not rely on what others have done.

The material collected by the students, will be used to a large extent by the Historical Survey Office. The Survey Office is conducting its own study of Missouri courthouses as part of the National Register program.

The National Register of Historic Places was authorized by an act of Congress in 1966. It was designed to list "Districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture." The government also made funds available to the states for the purpose of preparing comprehensive statewide historic surveys.

Missouri's survey is structured around various themes, according to Patricia Holmes, chief architectural historian for the office. The themes include agriculture, civic buildings, industry, military, residential, government—which includes courthouses—and some other areas.

"The information gathered by the art history seminar at the University will aid us in deciding

City of St. Louis Courthouse, A National Monument

Dent County Courthouse, Salem

Old Johnson County Courthouse, Warrensburg

Warren County Courthouse, Warrenton

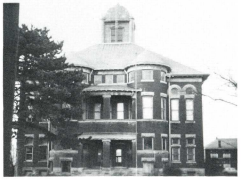
Moniteau County Courthouse, California

which courthouses are worthy of nomination to the Register," she says. "Missouri already has eight courthouses listed." Those listed are historically significant because of their architectural styles, their association with some historic event or person, or a combination of both.

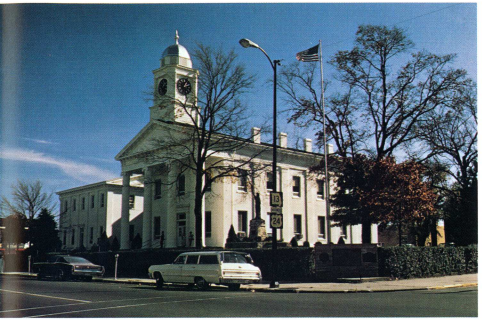
The Dent County courthouse at Salem, for example, is the earliest surviving mansard-roofed Victorian courthouse in the state, while Moniteau County courthouse at California is an interesting example of the Classic Revival style. Its setting on the courthouse square remains little changed from the late 1860s. The commercial buildings on the square as well as the courthouse date from that period. There are several Missouri courthouses that deviate from the traditional square plan, however. The Hermann courthouse, for example, sits on a hill.

The courthouse at Lexington is a dignified example of antebellum Classic Revival architecture and is one of the oldest continually used courthouses in the state. It also is well known for the cannon ball that was lodged in one of its columns during the battle of Lexington in 1861.

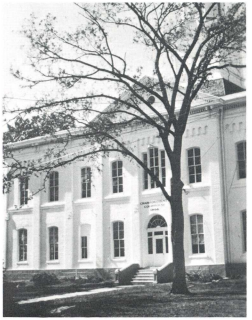
The Chariton County courthouse is strongly associated with a historic event, the secessionist struggle in middle Missouri. Guerrilla activities were intense in the Keytesville area and the courthouse



Caldwell County Courthouse, Kingston



Lafayette County Courthouse, Lexington



Chariton County Courthouse, Keytesville

was burned during a raid. After the war, a new building was financed with surtaxes levied against the county's Southern sympathizers.

At Warrensburg, the Old Johnson County courthouse is one of the few surviving 19th century Federal style courthouses in the state. It also was the scene of the unusual Burden vs. Hornsby trial. Charles Burden's favorite dog, Old Drum, had been shot by a neighbor Leonidas Hornsby. Sen. George Vest won the case for Burden when he appealed to all dog lovers with a tribute to the dog in his closing argument. Burden was awarded $50 for the loss of his dog and the eulogy became a classic.

The Caldwell County courthouse at Kingston and the Warren County courthouse at Warrenton are also on the National Register. The Gasconade County courthouse at Hermann, is part of the Hermann Historic District. The St. Louis courthouse, included in the Jefferson National Expansion Memorial district, is the only Missouri courthouse listed as a National Landmark.

Missouri has 156 sites now on the National Register. They range from the Executive Mansion at Jefferson City to an iron furnace stack in Moselle. They also include archaeological sites, caves, residences and office buildings.

"Our historic heritage is something that should be saved," Overby explains. "Our research in this seminar has shown that the courthouse served a myriad of purposes for the citizens of a county. The courthouse square was a major meeting place. The building sometimes housed religious services, high school graduations, plays or other social functions, and the trials were a major source of entertainment."

"The people took great pride in their courthouses," Mrs. Holmes adds, "Often the courthouse was the most prominent example of building art in the county." □


MISSOURI

Tiger Track Coach Tom Botts Retires Sept. 1.

One of his former runners writes about

THE GENTLE-MAN COACH

By Bob Arnold

Some people would use numbers to describe Tom Botts. In 31 years at the University, he has produced one NCAA indoor championship team; two Olympians; two Big 7 champion cross country teams; four indoor and four outdoor Big 8 champion track teams; and 24 all-Americans.

Others would use cliches. The "white-thatched dean of Big 8 track coaches" who will retire this summer has "influenced the lives of hundreds of young men."

A trackman, however, might choose three facts. For one thing, Botts uses broken cross-bars (the things high jumpers and pole vaulters jump over) for tomato stakes.

For another, his wife (who claims she will deny any quote attributed to her) says with a sparkle in her smile that at home "he's fun in every way."

For a third, his standard pre-race pep talk, counter to the stereotype of such things, is short, unemotional, and almost logical. "It's going to take courage," he might say. "But you men have lots of that."

That's what he told his team one Saturday morning in November of 1967, about 20 minutes before it won Mizzou's first Big 8 cross country championship. Added to Boulder's 5,200-foot altitude and a wind which swept out of the Rockies at a steady 40 mph, that exhortation had the impact of a four-ton eight ball. The race was our responsibility.

His statement characterizes a coaching philosophy which places the onus for training and winning on an athlete's desire and self-knowledge, and which recognizes as a substitute for victory, the fact that a man has done his best. It's a proven philosophy.

There are no written training rules, no curfews, no bed checks on trips. There are, however, unspoken guidelines, created by what Jean Madden, a middle-distance man during 1947-49, calls "leadership by example rather than precept."

For instance, at the age of 68 Coach (even his wife calls him that) still runs two miles at 5:30 each morning. He neither smokes nor drinks, seldom swears, and believes enough in the nutritional virtues of cottage cheese to recommend it to anyone, over and over if need be.

Madden can attest to the effectiveness of example:

"I've been at the country club, standing with a beer in my hand when he walked in, and invariably I'll either give it to someone or set it down before he sees me. And the thing is, even if he did see me with one he would never, ever say anything about it."

In some cases, what may have begun as an example or out of necessity may now be regarded as a Botts idiosyncrasy. There are those cross-bar tomato stakes, for instance. Why those? "He's frugal to a fault," is Madden's smiling opinion. Bob Teel, who will be the new head track coach, puts it differently:

"Coach Botts spends University money like it was his own, and there are damn few coaches you can say that about." The fact provides material for some good-natured ribbing, much of it behind his back and some of it earned, as any trackman who has stayed in the 1915-era

section of the Mountain Inn Hotel in Fayetteville, Ark., during the Arkansas Relays can testify.

Nevertheless, his common-sense use of money is perhaps the most obvious aspect of a practicality and efficiency which permeates both his professional and personal lives. For instance, a stop watch presented to him last winter by former trackmen ("he just pats it," says Mrs. Botts) is the first he has ever owned.

When time came to resurface the track at Memorial Stadium, Mrs. Botts recalls, "we went everywhere trying to decide what to use." Such investigations, often adjunct to personal trips, resulted in a red clay and cinder surface which the Coach manicures—you guessed it—as if it were his own. Any pretty afternoon may find him shuffling up and down the track, removing alien pebbles and bits of paper spread over it the autumn before by careless football crowds.

Whether they agree with it, his men respect that life-style. In 1966, for instance, track alumni gave him a new car in recognition of his 25th year at the University.

"They bought the same kind of car they knew he would buy," says Mrs. Botts. "A black, four-door Chevrolet Impala. They did go one further. They bought air-conditioning, which he probably wouldn't have."

Perhaps understandably, Bott's litter-picking habit and quiet workout suggestions, combined with his invariable office uniform of a white shirt with a hand-tied bow tie, do not give the image of a fun sort of fellow. Mrs. Botts would disagree.

After 43 years of marriage she says "He's a marvelous person to have fun with. He's one of the best gardeners in the whole countryside" (tomatoes are his favorite). He also "loves to travel" in a way uncharacteristic in terms of his other habits.

"We'd take a vacation every summer when our son, Tom, was home," she says. "We'd start out with an idea of where to go, and if we found an interesting path on the way, we'd take that. We've gone practically all over the United States, just starting out that way."

He is a loyal Rotary member, a Presbyterian elder, and, allows Mrs. Botts, "you can say that he's always been very generous to his wife and son." Under that category might come the fact that he prepares Christmas dinner every year: a baked turkey and angel food cake.

Those facts and feelings seem to denote a good man, a good citizen. However, the men who have trained under him would not stop there.

Don Allard, Columbia's city manager and a javelin thrower on the teams of 1948-49 and 1954-55, is one of those:

"The thing about Coach Tom is that as long as you were willing to show up and try, he was always extremely patient. He's one of the finest people I've been around, period. I lost my father when I was young, and—he [Botts] doesn't know this—he's been kind of a father image to me."

Though during his track days Allard had no idea "I'd enter this occupation, my job's a lot like track. You're expected to be self-disciplined, to keep calm. And I have to avoid becoming impressed with myself."

Of course, any activity which involves the degree of self-inflicted physical and psychological pain that track requires can be expected to

Tom and Virginia Botts enjoy their flowers and his tomatoes. Below, Coach makes a suggestion to runners Kerry Hogan, left, and Brian Walsh.

make believers of those who persist, especially after their competing days (and the pain) are past. However, the motivation to perform under pressure is the key variable in competition.

An insistent, hard-driving coach, for instance, could have ruined distance runner Glenn Ogden in less than a year. Under the Botts approach, Ogden's fragile knees and hips, with frequent rests, carried him to three all-American placings during 1967-69.

On the other hand, the opposite can be argued as effectively. Some men (not kids, or boys; men is Coach's term) would have performed better under conditions more exclusively tailored to them.

But Tom Botts is not that type of coach. There's an ascetic aura in the way he will stand for hours in the cold or in drizzling rain, timing workouts. He is encouraging the men who accept his challenge to do things for themselves they didn't know they could. He is helping them learn more about themselves in four years, or less, than they might otherwise learn in a lifetime.

That's why, last February 26, a hundred or so former trackmen—as many as could be contacted on two week's notice—came back to Brewer Field House to be with him for his last indoor meet.

Afterwards, they stood around him on the basketball floor and presented to him, among other things, his first stop watch and a trip to the 1972 Olympics in Munich. Then, in a voice that turns to gravel when it rises, he responded in the way everyone knew he would:

"Fellows, this is altogether too much. I feel teribly grateful and very humble and proud of you all, not only—and perhaps less—for your performances, than for the fact that you have all become fine, useful citizens and outstanding young men." □

Bob Arnold, a graduate student in journalism, was a member of Tom Bott's track and cross country teams during 1964-69. He was captain of the team which in 1967 won the Big 8 cross country championships and placed sixth in the NCAA championships.

Botts always has believed that part of his job involves policing up the track and helping set up hurdles. The 68-year-old Botts came to Mizzou in '41, became head man in '46.

Around the Columns

☐ Minority Hiring

☐ Susie's Less Visible

☐ General Assembly

☐ Parking for Visitors

☐ Stalcup Dies

Recruiting Intensifies For Women, Black Faculty

An agressive program to speed the recruitment of women and blacks for Columbia Campus faculty posts has been announced by Chancellor Herbert W. Schooling.

The program is in line with a Board of Curator directive and also implements federal hiring requirements.

In a May 10 memo, Schooling announced several new policies to foster the Affirmative Action Program. Included was a requirement that all appointment offers for faculty positions must be approved by the Dean of Faculties Office, such approval depending upon the efforts of the department to recruit women and blacks; a requirement that each department project expected vacancies over the next five-year period and indicate the nature of the recruiting efforts to be followed in filling them; and an announcement that a black associate dean of faculties was being recruited.

This summer a faculty committee headed by another associate dean of faculties, Dr. Edmund A. Ford, will formulate additional guidelines for the program.

At the close of the spring semester, there were 12 blacks and 247 women holding the rank of instructor or above. The total University of Missouri-Columbia faculty numbered 1,510.

Search for Director To Replace Stalcup

The University again is seeking an athletic director for its Columbia Campus as the result of the death April 21 of Wilbur N. (Sparky) Stalcup. Stalcup died of a heart attack at the age of 62, just 14 months after he had assumed those duties. He had been admitted to the hospital on April 9 because of an earlier coronary.

Stalcup served Tiger athletics for 26 years, 16 of them as head basketball coach. He succeeded Dan Devine as director of athletics in February 1971 after serving for nine year's as Don Faurot's and Devine's assistant and associate director. Stalcup joined the University in 1946, succeeding George Edwards as basketball coach. He coached his last team in 1961-62.

Chancellor Herbert W. Schooling has asked the Committee on Intercollegiate Athletics to search for a new director and to submit to him a list of qualified candidates, preferably by mid-June. Schooling will then make his recommendation. Serving on the committee are three alumni members, Jim W. Farley, of Farley; Fred Mayer, of St. Louis, and Jack Senter, of Johnson County, Kansas. Assistant Director Harry Ice is handling the administrative chores during the interim.

Meanwhile, a memorial scholarship fund has been created in Stalcup's memory. Proceeds from the fund will be used to establish an athletic scholarship. Gifts for the

Legislature Approves $95 Million Appropriation

Missouri's General Assembly adjourned this spring after dealing with more than the usual number of bills affecting the University.

The lawmakers approved a budget appropriation of $95 million, well under the $112 million requested and sharply reduced from the $98 million recommended by the governor and the $97 million passed by the House. University President C. Brice Ratchford said the $5 million increase over a year ago would not provide for enrollment increases, inflation, and the additional mandatory costs for the opening of new buildings. Cutbacks will be inevitable, he said.

In a bill designed to aid both private schools and needy students, the legislature agreed to state assistance up to $900 a year for needy students, the money to be used at the college or university of the student's choice. The University did not oppose this bill, although the general feeling is the measure will aid the large private universities (i. e. St. Louis and Washington) more than the small private colleges. The legislature voted no money to fund the program, however, and a constitutional test may be forthcoming.

Missouri's five state colleges will soon call themselves universities as the result of another new law. Sponsors said the bill would prevent discrimination against graduates who were in competition for jobs with graduates of universities. The bill called for the name change only, but some argued that the new state universities soon would be asking for doctoral programs.

A bill of far-reaching implications—the so-called "super-board proposal"—was killed. It called for a constitutional amendment to place all public higher education in the state under one board with direct ties to the governor and legislature. The University, while favoring better coordination for higher education, opposed the bill because it took away the University's constitutional independence, and made it subject to the day-to-day pressures from the executive and legislative branches.

fund should be sent to Harry Ice, Rothwell Gymnasium, Columbia, Missouri 65201. Contributors already total well over a hundred.

To Open Jesse Parking

In what may be the high mark in its public relations effort, the Campus has announced that the parking lot in front of Jesse Hall will be used exclusively for visitors starting September 1. Formerly, it had served as a "status" parking lot for selected faculty and staff. Few things irritated visitors more over the years than driving to an empty stall in Lot 14, only to be told to move on and find parking elsewhere.

Coincidental with that announcement was the news that a visitors' information booth also would be located this fall on the first floor of Jesse.

Phys Ed Requirement Goes

The University of Missouri-Columbia faculty has voted to eliminate all physical education requirements for students beginning next semester.

Non-required physical education classes still will be available to any student regardless of his major, and elective credit will be given for the courses.

The elimination vote was the final stage of a three-year loosening of physical education requirements dictated by cramped classroom and activity facilities.

A 1970 physical education consulting committee described the University's facilities as "shameful" and said that "no major university in the country had such inadequate facilities."

A recent article in the *Columbia Missourian* also described the crowded classroom facilities. The article said that a golf course, shuffleboard class and testing were being held simultaneously on a balcony area at the Women's Gymnasium, while a trampoline class, physical fitness class, and gymnastics class were crowded together on the floor below.

With the start of the new voluntary program, enrollment is expected to drop, Dr. Ralph Stewart, department chairman said. But later, attendance will increase as courses are adapted to student interests, he added.

New Stephens Overpass Threatens Girl Watching

Girl watching faces a serious threat in Columbia with the opening of two overpasses connecting the north and south section of Stephens campus with the college's new campus commons building.

Stephens students are being encouraged to abandon their wandering across the busy intersection at Broadway and College Avenue in favor of the safer high rise routes.

Potential consequences are severe for Columbia girl watchers or just observers of female fashions. Stephens students have often been the first on the scene with the latest trends, hot pants and the no bra look being just two examples.

Traffic jams at the intersection are going to be a lot less fun now for the male motorists who would stop their cars in mid-street to let a girl in tennis dress cross or watch a leotard-clad student ripple off to dancing class.

The bridges are here to stay, but there is some hope: A Stephens spokesman says all the girls likely will not abandon the streets immediately because it probably will take some of them a while to begin using the overpasses.

missouri alumnus

The official publication of the Alumni Association of the University of Missouri-Columbia

Quiet / 17

Role & Scope / 2

Botts / 22

Sanborn / 14

Art / 18

New Beginning For Role and Scope / 2

Although no geographical assignments will be made before fall, here are the bases for such decisions.

Pomp Gets Personal / 6

Sanborn Field / 14

The Columbia Campus has the world's third oldest ag experimental area.

Is the Campus Really Quiet? / 17

Former MSA President Chip Casteel inaugurates a student-view column.

Art on the Courthouse Square / 18

A seminar in art history surveys Missouri courthouses for their historic and architectural values.

The Gentle-Man Coach / 22

After heading up the Tiger track and field program for more than 25 years, Tom Botts retires September 1.

Around the Columns / 26

Cover: Charles W. Reynolds Jr., of Ferguson, Missouri, received a BJ this spring. The first of seven children, he tries the mortarboard on the youngest, four-year-old Padraig (Packy) Reynolds.

IN THIS ISSUE