Kansas State U.: Whatever Happened to Good Old State U.?

Manhattan, Kansas. There is a joke among the 14,000 students at Kansas State University (KSU) that their institution is Nixon's favorite high school. Aside from reflecting on the caliber of education there, the joke has a point. Over the last 5 years, this state university in the farming town of Manhattan, Kansas, has remained amazingly immune from the turmoil that has swept through most of the nation's more liberal and cosmopolitan campuses.

KSU's reputation for peacefulness and stolid conservatism was the reason, many here say, that President Nixon chose to make his first university appearance here after the National Guard's shooting of four students at Kent State University in May 1970. In his KSU address in September 1970 Nixon delivered a much publicized call for reconciliation with the student generation. Days before, in San Jose, California, the presidential car had been allegedly stoned by student demonstrators; the man who ordered the Cambodia invasion that spring was not exactly popular with the young. But at KSU, virtually every student in the college jammed the auditorium and cheered the President wildly.

KSU is a land-grant college—designated so by the state legislature after the Morrill Land Grant Act was signed by President Lincoln in 1862. Today it is one of six in the university system supervised by a single board of regents. In keeping with the Morrill Act's dictum that it "teach such branches of learning as are related to agriculture and the mechanic arts . . . for the practical education of the industrial classes," KSU to this day is the "aggie" or agricultural school in the state university system, with its strongest departments being agriculture, home economics, engineering, and veterinary medicine.

It is possible to walk around KSU this fall—on tidy paved walks and well-tended lawns, among groups of students who look incredibly laundered and well rested, where there is neither a hippie nor a graffito in sight—and imagine that the 1960's just didn't happen here.

But KSU is in fact changing. Among the students there is now a substantial black population. Blocks from the old football stadium is an officially endorsed free university offering courses in everything from medicine for the layman to gay liberation; the supposedly apathetic, apolitical students complain about lack of communication with the university administrators.

At KSU, political views tend to run into a wholesome, middle-America, moderate-to-right conservatism. There are few extremists on the campus; those who come here find the political surroundings barren and give up; otherwise they move to more fertile, liberal ground elsewhere. "A lot of people from the East arrive here and are in a big hurry to change things. But if they don't adjust to the pace here, they just leave. You don't get anywhere here by coming on strong," says Dave Hursh, a member of the free university and a New Yorker who has learned to mix with the Kansas style. But the older generation at KSU explains the conformity and conservatism in another way. "We're very close to production out here, and you might say that our students still believe in a day's work for a day's pay," says Bruce Laughlin, director of placement, not without a touch of chauvinism.

Statistics provide some explanation. A majority of the students come from families where neither parent attended college. Geographically, too, they come from Kansas' farm population and small rural towns: families in the urban areas of Kansas City, Topeka, and Wichita tend to send their high school graduates to the more urban campus of the University of Kansas (UK) at Lawrence.

Moreover, many on the campus here are convinced that KSU's reputation as an Eden-like sanctuary from drugs, political radicalism, hippie transients, and other threatening things has set in motion a Darwinian process of selection. A student looking for political activity and a wide campus experiance just doesn't bother to come to Manhattan, they say. As one feature writer in the *Kansas State Collegian* explained it: "Kansas State has a distinct reputation in the minds of many parents. Whether or not this image of the school corresponds to reality is irrelevant to the fact that parents are influenced by it." This may account for the fact that this fall, KSU was the only college in the state to experience a big jump in enrollment—1000 more students enrolled than the normal annual increase, or a rise of 9 percent. Moreover, while many private and state universities are watching alumni giving droop, at KSU donations are climbing steadily upward.

But the atmosphere of peace and quiet here, so dear to parents and alumni, does not exclude change. One does not have to look far for shifting student attitudes, a younger, better educated faculty than that of 5 or 10 years ago, and a changed viewpoint in the college administration of what in the 1970's, an "ag school" should become. Finally, in an ironic twist, KSU seems to be benefiting academically from the slumped job market for Ph.D.'s which has hurt universities elsewhere.

The University for Man (UFM) is one index of change. University for Man was started in 1967—located in a commune—as a vehicle for ungraded, noncredit classes for students, Manhattan residents, and anyone else interested. The project has perked along at a comfortable distance from the traditional university ever since. It even lives off of funds provided by student government. Its director, Sue Maes, holds the post of assistant instructor at KSU. About 10 percent of the KSU student body participates in the courses which include candlemaking, ecology, astrology, women's liberation, and interpersonal communications.

What is so striking about UFM is not what it offers, but the fact that it exists at all, and, moreover, has the approval of pretty nearly everyone at Kansas State from President James A. McCain on down. On almost any other campus, such a place would be a focus of opposition to the university administration. Instead of focusing on the Vietnam war or university policies UFM has gone most heavily into the rather neutral issue of open classrooms and free education—less at KSU than in high schools and elementary schools in the Kansas area. As for the administration, "we don't have much to do with them," Sue says, "there are so many things you can do without con-

frontation. We think that the changes will come about only when you get a lot of kids who are aware."

Another change in KSU life was brought about by a black recruitment program which began several years ago, when increasing numbers of black students from Kansas and from out of state were added. By 1968, there were some 200 black students on campus; a yearly black-culture week and the formation of a black student union are testimony to their presence. The experience has not been entirely successful. Two and three years ago, there was a series of incidents—minor in scale compared to those at Cornell and elsewhere, but major for KSU. A few of the black students were subsequently involved in disciplinary action, both on campus and in the civil courts.

But in a fashion typical of KSU's calm style the situation is now quiet, although not without tension. And either because the climate for blacks there is too uniform and discouraging or because of subtle university disenchantment with recruiting, KSU bucked national trends this fall when its black enrollment actually dropped.

But the real transformation at KSU is in academics.

The perennial dilemma of "ag schools" is that the requirement of strength in agriculture and veterinary subjects inhibits departments in the natural sciences and the liberal arts to develop independent, strong programs. Thus the race for both prestige and large budgets, a national pattern for all academic departments in the last 20 years, runs into obstacles in a land-grant college.

KSU's board of regents has looked favorably on developing agriculture and related departments, but insists that other departments not compete with those in other universities in the state. The UK's literature and history departments have been favored by the regents, but at KSU they have gone begging. Both UK and KSU have developed computation facilities and a joint computer science program. However, a KSU computer man says that at the other state schools—Emporia, Pittsburg, and Hays, "they are just so grateful if we can send them a bent IBM card."

In recent years KSU has been working toward a resolution of this traditional academic dilemma. Caroll V. Hess, dean of the College of Agriculture, explains, "The housewife doesn't buy potatoes anymore; she wants to buy something she can take out of a box and put in a pan and it becomes a French fry. . . .

"This means two things for us. First, there is a need for a higher quality man to operate a large, commercialized farm operation. Second, off-farm agricultural business has developed in food and fiber processing and distribution. This includes the feed and fertilizer industries, the elevators, milling, and processing of cereals, the pastry process, and others. For many years Midwest schools had two and a half jobs for every agricultural graduate available. This year it is down some, but there is still one and a half job[s] for every graduate. . . . But there is a persistent demand for food. People can stop buying cars or television sets, but they have to go on buying food. And in a few years, the population will double. So we are unlike any other industry."

This gradual professionalization spreads to other fields. The College of Veterinary Medicine, for example, increased its faculty by 100 percent in the last 5 years; but most of the new faculty were Ph.D.'s in physiology and the basic sciences, or M.D.'s. In 1960, only 45 percent of the KSU faculty held the doctorate degree; today, nearly 70 percent do. This change is transforming KSU at least as much as are student styles and politics.

Upgrading its departments has also won KSU an increased share of federal research dollars. An example is a $254,000 grant from the National Science Foundation to study aspects of nuclear safeguards, which began last year and, 2 weeks ago, sponsored an international conference on safeguards which drew key figures in the field. The grant is for 2 years and is directed by Robert B. Leachman, professor of physics. KSU has an overall federal research income of some $3 million.

Physics has been able to benefit from the transition, pulling itself up by its bootstraps. The department now has a van de Graff accelerator and shares, with the computing center and mathematics department, a modern, roomy building named Cardwell Hall. (The biology department has a new building, and KSU has a new auditorium, football stadium, and college of veterinary medicine—more signs of prosperity at a time when most universities are building little.)

The physics department's youthful head, an associate professor named Charles E. Hathaway, talks happily about a colleague in the entomology department who wanted some of his graduate students and a laser beam to experiment with the olfactory systems of flies. "I'm not ashamed of this. This is what I think is the definition of a university. I don't think a physics department should operate independently of a university."

By contrast with the widespread unemployment of physics Ph.D.'s, all of KSU's yearly nine or so Ph.D.s, are fully employed. The list of the positions they take might make a M.I.T. or Harvard professor whiten—but it has a refreshing, practical ring. One graduate, whose hobby was railroads, called up Union Pacific, told them they needed a physicist, and got the job. Others: the University of Florida; the Army; the Edgewood Arsenal in Maryland; Uganda; teaching (by choice) in Kansas junior college; Los Alamos Laboratory; a textile mill in Charlotte, North Carolina; Globe Co., an oil concern in El Paso, Texas; and Lawrence Radiation Laboratory.

Finally, the slumped academic job market which has hit the eastern schools and California, has caused many faculty to flee, so to speak, to KSU. "Quite frankly, 2 years ago, I did not have this place in mind," says one junior faculty member in physics. "Like a lot of people here I guess I just came here because things weren't breaking the way I had expected them to." But

Stever-NSF Nomination

As *Science* went to press Monday, the White House announced the long-expected appointment of H. Guyford Stever, president of Carnegie Mellon University to succeed William D. McElroy as director of the National Science Foundation. McElroy leaves the post in February to become chancellor of the University of California, San Diego. Stever is known primarily as an administrator. He will be the first college president and the first physicist-engineer to head NSF. He has a 20-year record as a military adviser, particularly with the U.S. Air Force, where he was chief scientist (1955–56) and served for 11 years on the Defense Science Board. He is currently on the National Science Board.—D.S.

there are other reasons, too. Another young campus administrator brought his wife and family to Manhattan (population, 27,000) from St. Louis, Mo. "Back in St. Louis my kids couldn't ride their bikes to get their hair cut because of the freeways. Here the streets are safe." And Hathaway, who came from Texas 6 years ago, says, "there's a certain life on this campus. We have the life, a spark without too much heat. Heat never adds anything when you're doing research."

The man who has presided over KSU's remarkable journey into the 1970's is its president, James A. McCain, 63. He came to Kansas State as president in 1950, succeeding Milton Eisenhower who had been KSU's president since 1943.

At a time when university presidents have been popping in and out of their jobs like puppets in a Punch and Judy show, McCain's 21-year tenure on the scene has become something of a local legend. He arranged the Nixon visit, promoted the university construction boom, and is generally responsible for the school's favorable publicity. And he is probably the only university president in the country who still leaves the door to his office open when he talks to reporters. In June 1973 he will retire. His future? "McCain could run for office from anywhere in Kansas tomorrow and get elected," a colleague said, "and there aren't many college presidents in the country who could do that."—DEBORAH SHAPLEY

Hexachlorophene: FDA Temporizes on Brain-Damaging Chemical

The Food and Drug Administration is preparing to take limited action against certain uses of a brain-damaging chemical some 18 months after scientists in one of the agency's regional offices first raised doubts about the chemical's safety. The chemical, hexachlorophene,* is an antibacterial agent used in a wide variety of soaps, shampoos, deodorants, creams, and sundry cosmetics. Hexachlorophene will probably turn out to be quite innocuous in most of its normal uses, but because of confused and dilatory action, the FDA and the industries it is supposed to regulate have not yet managed to assess the potentially serious hazards the chemical presents.

The chief of these hazards is that small concentrations of hexachlorophene produce microscopically visible damage in the brains of rats. Since the chemical is absorbed through the skin, it may reach harmful concentrations in the blood, particularly of people who make heavy use of hexachlorophene-containing products. A second danger, even less well assessed, is that hexachlorophene may contain as a manufacturing impurity the group of chemicals known as dioxins, minute quantities of which can cause violent skin eruptions and acne.

Hexachlorophene has enjoyed more than two decades of safe use as the standard antibacterial agent of soaps. This record was chiefly due to the responsible policy of the Swiss-based Givaudan Corporation, which developed and patented the chemical. Contrary to its best commercial interests, Givaudan sold hexachlorophene only to companies that could demonstrate a safe and effective use for it in their products. When Givaudan's patent expired 3 or 4 years ago, so did its control. Regulation passed to the FDA, which has placed virtually no restrictions on the chemical.

Because of its extreme toxicity, Givaudan refused to sell hexachlorophene for such internal uses as in throat lozenges. But the FDA has countenanced its use in toothpastes and mouthwashes. Hexachlorophene is now an ingredient of some 300 to 400 products, ranging from fungicides for vegetables and citrus fruits, to shoeliners, shampoos, and after-shave lotions. Among its most needless uses is in vaginal deodorants, a $53 million-a-year racket founded on high pressure advertising and the ruthless exploitation of modern phobias about body odor. (Hexachlorophene is not even effective against the type of bacteria chiefly responsible for vaginal odor.) Like DDT, another chlorinated aromatic compound, hexachlorophene has become a common human additive, being present in the bloodstream in amounts typically of 1 part per billion. Such has been the consequence of regulatory responsibility passing from an industrial company to a government agency.

Danger signals about hexachlorophene have not been wanting, only ignored. Two unique diseases, chloasma and burn encephalopathy, have been associated with the chemical. Chloasma, described as a blackening of the face, was reported in 1961; burn encephalopathy, a state of coma and muscle twitching often observed in burn patients treated with hexachlorophene, was described in 1968 by D. L. Larson of the Galveston Shrine Burn Institute. Chloasma and other skin diseases that have periodically been associated with hexachlorophene should have been particularly suggestive to would-be regulators. Hexachlorophene is synthesized from 2,4,5-trichlorophenol, the same chemical that in the manufacture of the herbicide 2,4,5-T is known to give rise to dioxin. Dioxin was found in the mid-1960's to cause the gross skin disease, named chloracne, that disfigured workers in a 2,4,5-T plant.

Equally suggestive should have been the finding, first announced in 1967, that hexachlorophene can enter the body not just via wounds and burns, but through the intact skin. No one in the FDA seems to have been bothered by the thought that a poison intended for external use only might daily be reaching the bloodstream of millions of users.

Nonetheless, though for a quite different reason, it was an FDA scientist who first raised the lid on hexachlorophene. Because of a manufacturer's application to use hexachlorophene as a fungicide, a test of the chemical's toxicity was undertaken at the FDA's toxicology branch in Atlanta, Georgia. Renate D. Kimbrough and her colleague Thomas B. Gaines found that rats became paralyzed after a 2-week diet containing 500 parts per million (ppm) of hexachlorophene. Examining the rats' brain and spinal cord, they

* Hexachlorophene is known chemically as 2,2′-methylenebis(3,4,6-trichlorophenol).