On February 1 and 2, Washington University cancelled classes and closed offices as St. Louis dug out from the worst snowfall in seventy years. It was the third time in seven decades that the University closed its classroom doors. On November 25, 1963, it observed the national day of mourning for President John F. Kennedy. On October 9, 1918, in response to restrictions on gatherings imposed to stem the devastating flu epidemic, the University suspended classes indefinitely. It reopened on November 18 of that year and stayed in session late into the spring to make up the work.

Last February, despite two feet of snow drifted high enough in some places to bury automobiles, dedicated workers struggled in to keep essential services operating. The University's residential community not only was fed, warmed, and ministered to, but many of its members staffed other operations. The library opened its doors with mostly student help supporting a few staff members. Groundskeepers hired about two dozen students to help shovel paths and chip away ice uncovered by snow blowers.

Inevitably, as St. Louis temperatures warmed to February norms, the lasting snow cover created fog, and for long hours of the morning and at twilight, familiar campus scenes emerged from and disappeared into mist.
Washington University

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Cover: Former Dean Adele Starbird, now ninety-one. See Page 2.

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Adele Starbird

"The girl or young lady should be educated with reference to her absolute wants. She should be treated as a rational being who has a mind to think with, duties to perform, and a soul to save."

Adele Starbird certainly didn’t hear the Reverend William Greenleaf Eliot lecture on the education of young ladies in 1852, but in her years of deanining at Washington University, she was an educator who met those expectations abundantly. If she were dean today, the vocabulary of vision would be different, yet undergraduate women would still thrive in the bracing atmosphere of her intelligence and compassion.

In the fall of 1931, when Adele Starbird took up residence in the dean’s apartment in McMillan Hall and established herself in the dean’s office in the Women’s Building, Washington University had fewer than 3,500 students enrolled in all its schools and less than 1,400 undergraduates in the College of Arts and Sciences. Most came from St. Louis, commuting daily to campus by streetcar. Only a few lived in the dormitories: 200 men in Liggett and Lee, and 125 women in McMillan Hall.

The campus, though not as densely built up as it is today, had the familiar serene reaches of green and the same rosy Tudor-Gothic buildings. Many of the student activities were the same, too—newspaper, literary magazine, yearbook—but they seemed more central to student life, more in the forefront of meaning. Students were very involved on campus, in seventeen fraternities and ten sororities and a host of honorary societies and other student groups and activities. The semesters had social rhythm as well as an order imposed by academic life; the year had a dependable pattern of social events and traditions. Then as now Student Life demanded commitment, but so did Mortar Board and Pershing Rifles. Every year there were at least three balls, each with its queen and maids of honor; every year had its ceremonies of initiation. Week after week, an interlace of meetings, teas, dinners, dances, and club obligations kept students occupied with one another and the life of the campus.

“The program at Washington,” Starbird wrote in a handbook somewhat later, “has just two objectives: to make it possible for girls to grow, to develop all their powers; and to make the University a place of happy memories.” In those days, regulations undergirded that possibility and defined its decorum. Standards were explicit and rules strict. Both appearance and deportment, especially for women, were spelled out: how they should look, when they might come and go, what was proper conduct. As late as 1942, “Women at Washington” described McMillan Hall as “an ideal physical setting in which students may develop the charm, poise, and social grace which constitute an important part of their education.”

“I was shattered,” recalled one graduate, “when I didn’t know to stand up when the dean came into the room.”

“Our lives were very different,” mused another.

In this environment, the dean of women was hostess, chaperone, social arbiter, and administrator of McMillan Hall, as well as advisor to women’s organizations, counselor, and disciplinarian. “I took it very seriously,” Starbird recalled, “but I tried not to be too heavy about it nor lose my sense of humor.” That she became dean is one of what she calls the fortuitous circumstances of her life. The way she did her deanining was the natural result of the person she is. She had the heart, mind, and moral presence deanining then required.

Adele Chomeau Starbird grew up in Clayton, Missouri, when it was a spacious country village of frame houses and tree-lined streets. No plumbing, she remembers, no streetlights, plank sidewalks. There was high expectation as well as care in that family. Adele and her two brothers were to do well in school, to take care of home responsibilities; they learned to work. She read, her mother used to say, all the time. She learned to achieve, to know her own mind and speak it. She was surrounded with dependable love. “I was very fortunate in my childhood; it was happy and secure. I was brought up in a religious family and taught principles that stood me in good stead all through my life.

“I’m always embarrassed when people ask me about my education,” she says. "It looks like one
of the crazy quilts I used to make for my dolls. So much just happened; so much was fortuitous. I didn't have a goal; I didn't plan. I just knew what I wanted to do, one thing at a time.

When she finished Mary Institute in 1909, with high honors, her father wanted to send her to college. But she wanted to study in Europe to be a concert pianist. Henri Chomeau wouldn't hear of it, "his darling daughter over there all alone." So Adele stayed home, did not go to college, but continued music until a cousin said, "If you'll send Adele to Europe, I'll go with her."

She went to Strasbourg to study with Fritz Blumer, a student of Liszt's, though she knew by then that she was going to marry Robert Starbird, whom she had met in his short story class at Washington University.

At the end of the first year, her father came over to be with her, to buy her trousseau and make wedding preparations. "My friends always thought he sent me to Europe and then came over himself to break up the marriage," she recalls. "But that wasn't the case at all. He was old-fashioned and French, and he was showing his care for me. We had a wonderful two months, just being together."

After marriage, the Starbirds went to Paris where Robert attended seminars in phonetics at the Collège de France. Mrs. Starbird went along to take notes for him "because he was more confident of my French than of his." That training in phonetics at the Sorbonne was another of those fortuities that marked her life: it became the basis for a profession she did not then know she would have.

She continued her music, too. "If you want to be a concert pianist," her husband had said, "I will do everything in my power to help you." That seemed to her the direction her life would take, though she didn't have an A.B. from Washington University by now, she had never been an undergraduate. She had never entered campus life. She had never entered campus life herself at all.

When her mother wrote that she was needed at home, there was no question of lingering longer. Her return to St. Louis was also a return to Mary Institute, Edmund Sears, asked her to take over some English classes to finish out the year. "I was absolutely floored. I had never thought of entering the classroom." But enter she did, and so successfully that he offered her a permanent position. English, she said, was not what she wanted to teach all her life. "What would you like to teach?" he asked her. French, she thought. So French she taught.

Mary Institute was satisfied, but Starbird wasn't. She wanted more training in language and literature. After two years, she took a leave of absence to go to Columbia University, another bold decision made with innocent confidence. Though she didn't have an A.B., she asked to be allowed to register in graduate courses in French; she certainly didn't need beginning French. After an interview with her, the chair of the French department sent a note to the graduate school: Adele Starbird should be allowed to register in any course she wanted in the French department.

She stayed in New York for five exciting years, taking nearly every course offered in French and some in philosophy, supporting herself by chaperoning and teaching. Even now the memory lights up her face. "New York was a wonderful place for intellectual development. It was so alive."

When her mother wrote that she was needed at home, there was no question of lingering longer. Her return to St. Louis was also a return to Mary Institute where she chaired French for six years, until Chancellor Throop asked her to take the position of dean of women at Washington University.

Here she was again, face to face with new responsibilities for which she had no formal training. Though she had an A.B. from Washington University by now, she had never been an undergraduate in the classic sense, had never lived on campus, didn't even know the names of the sororities, much less the intricacies of their relationship to undergraduate life. She had never entered campus life herself at all.

She accepted, and after a summer at Teachers College, Columbia University (for courses in student personnel work), she took on that whole complex task. Her appointment read: dean of women with rank of full professor and instructor in French. She felt, as she recalls now, that she came to deaning unprepared, that, as usual, she got the
training after she got the job. Throop, on the other hand, was clear that he was appointing a person who was already qualified. He saw no need for Teachers College. She brought herself to her work, with all the resources of intellect, culture, and moral vision that entailed.

In 1931 the rules were strict. "I'm not going to pretend," she said, "that all the rules were kept or that all infractions were noted and dealt with. But I felt a certain consistency must be kept. As long as a rule was on the books, it should be obeyed. If it couldn't be enforced, something should be done to change the rule. A campus should be held at a certain tension, like a violin. It shouldn't be allowed to go slack nor held too tight. To keep it, there should be an underlying discipline of respect for individuals and organizations." Therein lay both her rigor and compassion.

A colleague on the discipline committee once said, "You confuse me. You're severe on girls who cheat and often lenient with sexual lapses."

The difference, she told him, was simple. "If a girl is absolutely honest, there's good material there, something you can build on. If a girl lies and cheats, there's no hope.

"I didn't always report every case," she continued. "If the situation justified it and the woman was honest, I would suggest she transfer so the misdemeanor would not be on her record."

"She seemed to us," recalls Dorothy Brockhoff, "to be a wise and compassionate woman, one you could always take your problems to. She had excellent judgment, and you could trust her to respect your confidence."

"Although she is the busiest woman on campus," a writer in the 1946 Hatchet commented, "Dean Starbird is never too hurried for a friendly chat with women students. She has an enthusiastic interest in campus affairs and an especially keen insight into student problems. The decisions which in her capacity she is constantly called upon to make are highly respected for their impartiality."

Peg Gamble, once president of the Women's Council and a long-time friend of the dean, describes her as "the first adult I ever met that I knew would make a sacrifice for what she thought was right, the first adult who said to me, 'do it because it's right' and not 'do it for me.' I'm more grateful to the University for having her there for me to know than for any one single thing. She is completely clear-eyed about what goes on in the world and at the same time completely dedicated to what is right."

At that time, Mortar Board, the senior women's honorary, had regular monthly meetings. Because these came at the end of the day in the lives of very pressed undergraduates, Starbird began giving dinners in her apartment to give members time to relax before business. These dinners were a revelation. Many members had never known a woman like her. She opened the world, gave them a sense of the opportunities in education and travel. She kept abreast of literature, music, theatre, and politics, and talked about them. "With her," said Gamble, "you talked about things like philosophy naturally because they were a natural part of your life. I have a different personal life because of her."

She was much more than the monitor of women's groups or fierce guardian of McMillan Hall. She used what power she had to see that women had their proper place in the structure of governance. When the men's and women's councils were replaced by a joint board, she noted somewhat tartly to the dean of students that the board was composed of two women and six men. She urged sororities to be independent of fraternities. She talked about obligation and discipline. "You're not elected for the honor," she would say to officers of student
organizations, "but to do the hard work."

One young woman, back for a convocation after some time away at another university, told the dean, "It seemed very good to see you up there still talking about honor."

By her own account Starbird was not a sentimental dean. By theirs she was a compassionate one, never too busy, tired, or preoccupied to take time for the problems of others. Both men and women were touched by her care and judgment and her apparently boundless willingness to put herself out for them, give her time, use her influence when it was appropriate and helpful, and share herself.

Francis Bruno, an undergraduate in the 1940s and now director of safety and disaster for the St. Louis chapter of the American Red Cross, says simply, "She raised me. I came to the University from the Pennsylvania coal mines where I had worked for three years to be able to afford to go to college. It was very hard for me to keep up and I was often discouraged. She gave me time. She always found a way to help, whether my problem was Spanish or a sociology paper or a place to live. She encouraged me to keep looking ahead, to move on, not to look back. She taught me patience and warmth for people because that was the way she treated me."

She has a way of being present for other people, drawing them into the circle of her interest and care. Once there, they tend to remain.

Larry Carp, a Clayton attorney, was sixteen when he met her in the cafeteria in the Women's Building, and they've been friends ever since. "My friendship with her is one of the outstanding things of my life. I feel terribly privileged that we've had this important friendship that's gone on for forty years."

Over the years she finished a master's degree in philosophy and completed all the residency requirements for a Ph.D. at Columbia. Honors accumulated as well. She was the first woman to serve on the board of the YMCA in St. Louis, one of a hundred college French teachers chosen by the French government to help rebuild cultural relations after World War II, and one of eight outstanding women named by the Business and Professional Women in 1952. In 1959 she received the degree of doctor of humani-
ties from Lindenwood College and was made a Knight of the Order of Academic Palms by the French government. She received the Founders Day Award in 1967 and the William Greenleaf Eliot Award in 1979.

Beyond the University, she maintained a long dialogue with St. Louisans in her newspaper column, which appeared for over forty years—first in the *Star Times*, then in the *Post-Dispatch*, and finally selected and compiled in her book *Many Strings to My Lute*. She was always able to communicate with people of every age and station and add content to their lives—values, ethics, religion, insights. She wrote about her childhood and family, about human relations—children and parents, husbands and wives—about courage, honesty, delight, discipline, faith, about seasons and pets. She never forgot that she had experienced grief in her life and learned, not to forget it, but to find other dimensions to happiness.

To some, especially at the end of her long deanship in 1959, she may have seemed very much the conservator of old values. The university was changed, first by the influx of veterans after World War II and then by the deliberate national recruiting of the 1950s. Here, as everywhere, social life on campus was appreciably different; the trend toward less-direct university involvement in student activities was well under way. But even then, those who understood what she was about—living with intelligence and integrity—were drawn to her.

“Old age,” she wrote in her column in 1977, “seems like a monstrous joke, as if I were wearing a disguise at a costume party ... I tell myself I am old, but I don’t believe it.”

She sits perfectly straight, that tiny lady, courteous, caring, attentive. Talk rolls out, a magic carpet of memory rich with reference to experience, reading, thought, and feeling, ranging over a landscape of events, a geography of meaning. It’s clear that she loves her life, that her resources of acuity, humor, and interest are as abundant now as they ever were.

She savors each piece of that crazy quilt in memory of it, as she must have savored each in its own present.

“Those years made a deep impression on me. If I hear ‘Stardust’ or one of those old songs out of context, as I once did driving along a highway in Mexico, I see girls in long white dresses, dancing.” Her laugh rings out like a girl’s.
Alfred Parker, as the young man who graduated from the School of Fine Arts in 1927 was wont to sign his work, sold his first major magazine cover in 1930. Within a decade, he was one of the nation’s leading illustrators. In 1965, he was elected to the Hall of Fame of the Society of Illustrators in New York and in 1981 was honored with a Life Achievement Award from its Los Angeles counterpart. He holds honorary degrees from Rhode Island School of Design, California College of Arts and Crafts, and, now, the Academy of Art in San Francisco. Coast to coast there is no disagreement on the achievement of Al Parker’s fifty-five years of work.

Recently, the fashion has become Al Parker retrospectives. Feeling no need to be outdone, herewith: Al Parker’s 1928 Hatchet illustrations.
Administration and Faculty

Minor Sports

Old Washington University

Dramatics

Honorary Fraternities

Women's Fraternities
When Senator Bill Bradley (D., New Jersey), speaking in Graham Chapel at Washington University last fall, suggested that all young people ought to spend a year in service to their country, but not necessarily in military service, students interrupted with applause. Bradley’s proposal struck a strong national predilection—the citizen’s obligation to serve community and society.

The applause in Graham Chapel sprang from students’ desires to assume responsible roles at a time when adolescence—social and economic immaturity—has been artificially extended. A large number of young people spend an adolescence that extends well into their twenties on college campuses acquiring degrees and credentials. But they are hungry for other experiences. Most would prefer to participate in the world as contributing adults, rather than continue for so many years in dependent student roles.

Young people who are not in school are, by and large, less fortunate. Post-Industrial society offers few opportunities for the untrained. Faced with an inhospitable labor market, many do not manage to shape a future for themselves or contribute to the world around them. The record unemployment rate for teenagers is a major indicator of this problem. The official unemployment rate for all teens is more than 20 percent. For nonwhites, it is 40 percent. At the present time, there are at least two million people in the United States between the ages of sixteen and twenty-four not in school, looking for work, unable to find it.

As a result, many young people—students and nonstudents, rich and poor, white and nonwhite—have grown disenchanted and are culturally disengaged. Their emptiness and frustration have been expressed in many ways. During the 1970s the nation witnessed among young people sharply increased crime and vandalism; markedly decreased national election participation; increased drug abuse, alcoholism, and alcohol-related deaths; record numbers of out-of-wedlock pregnancies and childbirths; dramatically increased religious cult activity; and, bleakest of all, record numbers of suicides. These unfortunate trends indicate that the path from youth to adulthood today may be more difficult than ever before.

The traditional prescription for maturity, “getting a job and settling down,” is now a long and complex process. The labor market, undergoing radical transformations both technologically and demographically, is shifting employment opportunities away from unskilled and low-skilled jobs to technical positions requiring extended education. In addition, a larger number of women are entering the labor force and competing with young people for jobs. As a result, many young people are unable to find a place in society. Many have little hope of success from the beginning. Others get sidetracked along the way. And this is not a short-term problem that will disappear in the near future. These dominant trends in the labor market are likely to continue in the years ahead, and young people will continue to be pushed aside.

The authors of a recent weekly news magazine article lamenting the familiar list of teenage problems—drugs, crime, cults, suicides—concluded that young people are “growing up too fast, exposed to too much, too soon.” I cannot think of a more misleading, useless interpretation. The real problem in America is that young people are not encouraged—and often not permitted—to grow up soon enough. The unrelenting forces of the labor market thwart conventional employment and independence, and how else is one to be “grown up” in this society? There are currently few alternatives. Many of the social problems affecting young people are manifestations of the energy of youth gone sour for lack of constructive outlets. Young people do not have sufficient opportunities to assume responsible roles in society.

The nation can no longer blindly assume that, left to itself, the labor market will effectively channel the enthusiasm and creativity of youth into the constructive contributions of adulthood. The labor market does not do so today and, in all likelihood, it will not do so tomorrow. There is a clear need in our post-Industrial democracy for alternative structures to augment traditional education and employment in shaping active and responsible citizens. And this is true for young people in school as well as for those who are not.

National service is one such alternative. As a general term, national service refers to a period of work and service given by the individual to the

Michael Sherraden and Donald Eberley are coauthors of National Service: Social, Economic and Military Impacts, published this spring by Pergamon Press, New York. Of it, Congressman Paul McCloskey, Jr. (R., Calif.) has said, “This timely book provides an invaluable reference. National service is not a panacea for all the nation’s ills, but it could become an important cornerstone of a national youth policy. Sherraden and Eberley tell us how to put that cornerstone in place.”

By Michael W. Sherraden
Assistant Professor of Social Work

National Youth Service

The applause in Graham Chapel last fall offered a strong national predilection—the citizen’s obligation to serve community and society. The real problem in America is that young people are “growing up too fast, exposed to too much, too soon.” The labor market, undergoing radical transformations both technologically and demographically, is shifting employment opportunities away from unskilled and low-skilled jobs to technical positions requiring extended education. In addition, a larger number of women are entering the labor force and competing with young people for jobs. As a result, many young people are unable to find a place in society. Many have little hope of success from the beginning. Others get sidetracked along the way. And this is not a short-term problem that will disappear in the near future. These dominant trends in the labor market are likely to continue in the years ahead, and young people will continue to be pushed aside.

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National Youth Service
nation or community, with appropriate recognition in return. National service embodies two complementary ideas: one, that some service to the larger society is part of each citizen's responsibility, and two, that society should provide opportunities for and encouragement of such contributions.

The basic idea of national service has been around a long time. The first major proposal was made by social philosopher and psychologist William James. James's seminal essay, "The Moral Equivalent of War," was originally presented in 1906 at Stanford University as an address. James viewed national service as a pragmatic means by which—in the absence of the external threat of war—a democratic nation could maintain social cohesiveness. He proposed a conscription of the youth population to provide a new sense of "civic discipline." In James's colorful language, young people would be sent off "to coal and iron mines, to freight trains, to fishing fleets in December, to dishwashing, clothes washing, and window washing, to road building and tunnel making, to foundries and stoke-holes, and to the frames of skyscrapers." Childishness would be "knocked out of them." The moral equivalent of war would promote "toughness without callousness, healthier sympathies, and soberer ideas." Although today James's words have an antique ring, he introduced the idea of national service in a memorable, lasting way.

Since James raised the issue, national service proposals have resurfaced often. Over the years prominent individuals such as Margaret Mead, Erik Erikson, Hubert Humphrey, Theodore Hesburgh, Vernon Jordan, Morris Janowitz, and Willard Wirtz have called for national service programs. In the White House, both Franklin Roosevelt and Lyndon Johnson gave serious consideration to a permanent national service. Today national service is supported by a bipartisan group in the Congress and by a growing number of educators and other persons concerned with youth issues.

Substantial national service experience in the United States nourishes this support. The Great Depression was the background against which the first national service experiment, the Civilian Conservation Corps (CCC), was created. Within a month of Franklin D. Roosevelt's inauguration as president in March 1933, his proposal for the CCC became law. By midsummer enrollment exceeded 250,000. Over a nine-year period more than three million young men participated in conservation work projects.

Chiefly because of its productivity, the CCC was among the most successful New Deal programs, popular with Republicans and Democrats alike. The CCC planted more than two billion trees covering twenty-one million acres to complete the largest single tree planting in the history of the world. Today, the timber value of these forests, adjusted for inflation, would pay the original cost of the CCC more than a dozen times over. In addition, the CCC built 46,000 vehicle bridges and 126,000 miles of minor roads, constructed 62,000 buildings other than their own camp buildings, restored 4,000 historic structures, and put in a million miles of fence, 89,000 miles of telephone lines, and 69,000 miles of fire breaks. The CCC built most of the existing recreational facilities in the national parks and developed 800 new state parks. More than forty million acres benefited from CCC erosion-control projects. These and other accomplishments won the CCC high praise in its own time. In the 1980s we continue to reap benefits from its efforts.

Roosevelt also created the National Youth Administration (NYA), a program larger, but less well known than the CCC. The NYA, employing nearly five million young men and women in a wide variety of projects, offered opportunities for students as well as nonstudents. Although Roosevelt hoped that the NYA and CCC would merge into a permanent national service, these experiments never overcame their temporary depression-era images. As job opportunities expanded with U.S. involvement in World War II, the CCC and NYA were dismantled.

Creation of the Peace Corps in 1961 again incorporated national service into federal policy. In 1967, at its peak, the Peace Corps had 15,000 volunteers. By 1980, some 85,000 volunteers had served in the developing nations of Africa, Asia, and Latin America. Although the lasting value of some Peace Corps projects has been questioned, the corps remains the most popular U.S. foreign aid program: it portrays a positive image of the United States abroad, and the experience is unquestionably valuable to volunteers.

Volunteers in Service to America (VISTA), though conceived under President Kennedy, did not actually get under way until 1964. Volunteers dealing with the causes of poverty have worked in poor communities, mental hospitals, Indian reservations, migrant labor camps, and correctional institutions. Funding has been at low levels and enrollment has never exceeded 5,000. The demand for VISTA volunteers has always been many times greater than funding would support.

The conservation corps idea reappeared in public policy with the creation of the Youth Conservation Corps (YCC) in 1970 and the Young Adult Conservation Corps (YACC) in 1978. Both of these efforts have resulted in benefits to participants and productivity in conservation work. New York mayor Edward Koch recently reported that in seventy New York City parks YACC crews—made up primarily of black and Hispanic high school dropouts—had, at a cost of only $2.9 million, completed work that would have cost an estimated $8.8 million in the open
Two crews planting on contour furrow at Glen Rock, Pennsylvania

Crews line up for noon meal.

market. He called YACC "critical for urban areas."

A major program at the state level has been the California Conservation Corps, a successor to former Governor Reagan's California Ecology Corps. The corps has a solid record of achievement. Its $38 million budget for forest, park, wildlife, and energy conservation projects is expected to continue under state funds when federal assistance ends. Looking at the productivity record of the California Conservation Corps, The Los Angeles Times commented, 'We cannot think of any part of the state budget that gets that kind of return on a very small investment.'

National service in the United States has had a great deal of success. Young people have responded to service opportunities enthusiastically and productively and the record confirms that they have had much to offer. In many cases, the economic value of service projects alone is ample justification for continuing and expanding these efforts.

Increasingly, the public favors a national service. A Gallup poll on July 5, 1981, showed public support, always substantial, stood at 71 percent for compulsory national service for men and 54 percent for compulsory national service for women. Note that this level of support is for compulsory service. When Gallup has asked the question in terms of voluntary service, positive response has been even stronger. A 1980 poll of eighteen to twenty-four year-olds found that 80 percent of young men and 74 percent of young women favored voluntary national service.

Leadership calls for national service also have risen. In August 1981, the Attorney General's Task Force on Violent Crime, co-chaired by former Attorney General Griffin Bell and Illinois Governor James Thompson, suggested, "Some form of national public service might be appropriate as a means to provide a portion of the structure now lacking in many young people's lives and thereby reduce the likelihood of their involvement in criminal activity." This recommendation is particularly noteworthy because by concerning itself with the causes and prevention of crime, the task force deliberately stepped beyond its mandate. About the same time, The Wall Street Journal reported that Senator Sam Nunn (D., Georgia) planned to submit legislation that would "introduce for the first time a legally mandatory period of national service for all young Americans." The Journal had editorialized in May 1981, "National service could be a means of acculturation, acquainting young people with their fellow Americans of all different races, creeds, and economic backgrounds."

In September 1981, Brown University announced the creation of an innovative National Service Scholarship Program funded by a million dollar grant from the C. V. Starr Foundation. This scholarship aid is open to students who have completed a year or more of full-time work at no pay or subsistence-level pay for public or private agencies that provide service to the elderly, disabled, ill, or other disadvantaged people; for agencies involved with conservation of national resources; or for voluntary military service. If such programs spread to other universities, there may come a day when nearly all scholarship aid, both public and private, is tied to service. This would tremendously improve the current practice of providing billions of dollars to college students and asking nothing in return.

In yet another statement of support, Franklin Thomas, president of the Ford Foundation, recently endorsed "compulsory national service of some kind for every young person, male or female." Thomas's chief concern is the plight of "underclass" youth in urban areas. He views national service as an alternative pathway to pride and independence in neighborhoods where youth unemployment is 50 percent or higher.

While public support and leadership calls for national service are increasing, many opportunities for voluntary public service by young people are drying up. We have been told to expect the demise of the Young Adult Conservation Corps in 1982 and VISTA in 1983. The Youth Conservation Corps, a summer program, is to be severely cut back. The Peace Corps is to be cut as well. These cutbacks run counter to public opinion.

It is difficult to predict whether public opinion regarding national service will eventually alter the current direction of public policy. It seems probable, however, that high youth unemployment and deteriorating social statistics related to youth will eventually be rejected by the American people as a senseless tragedy. Then, with more voices calling for positive action, a national service may be adopted sometime during this decade.

If national youth service becomes a reality in the 1980s, what would such a program look like? To address this question, it is useful to identify key lines along which national service models vary. Ten important issues are (1) voluntary vs. compulsory service, (2) universal opportunity, (3) diversity, (4) control, (5) size, (6) unit cost, (7) emphasis on constructive work and service, (8) employment implications, (9) educational value, and (10) relation to the military. Taking these considerations one by one, Donald Eberly, executive director of the National Service Secretariat, and I have proposed a program along these lines:

- National service would be voluntary.
- Opportunity would be universal, which would require administrative and financial arrangements so that nearly every young person—including the disadvantaged and the disabled—who offered to serve would be able to. There would be only minimal mental and physical standards, less rigorous than those of the military.
- The program would offer many
National Youth Service

diverse service opportunities—including conservation work, construction projects, social services, education, and work in government agencies. Successful programs which currently exist, such as Youth Conservation Corps and Peace Corps, would be placed under the national service umbrella.

• Much of the program would be operated at the local level under the control of private not-for-profit and public agencies. A quasi-public foundation similar to the Corporation for Public Broadcasting would be established to receive appropriations, approve applications, and maintain standards (for example, standards would assure no displacement of regular employees and no political or religious activity). Decision-making would be largely decentralized to the local level and responsive to local needs and conditions. In this way, the program would remain flexible and adaptive, and projects would be meaningful to local communities.

• The program would be allowed to grow in size depending upon demand and support at a local level. Because local organization would bear some costs, individual projects would either work well or they would not be supported. If, for lack of local support, the overall program did not grow, that would be fine. There would be no attempt to push a program that did not meet a genuine need. We anticipate, however, that the program would be successful and in three years would grow to about one million participants, which we suggest as an upper limit.

• Costs per participant would cover direct compensation—at or slightly below the minimum wage—administrative overhead, and post-program educational benefits. Based upon Congressional Budget Office and other estimates, this would be about $10,000 a year in 1981 dollars. (By comparison, the annual cost of maintaining one person in the military or in a correctional institution is more than double this amount.) Costs would be shared by participating agencies and the federal government. Education benefits would be covered by funds currently spent on other student-aid programs; by cutting back on these, educational funds would be available to national service participants.

• There would be a strong primary emphasis on productivity. National service projects would be expected to pay their own way by providing genuine benefits. Participating agencies and individuals would sign service contracts outlining performance expectations. If these were not fulfilled, the agency or individual would be fired. Only high-performance expectations and visible benefits would warrant continued public support.

• Employment implications would vary depending on the project. Job training, while not the primary goal, could be a frequent byproduct. Successful job training programs, such as the Job Corps, could be adapted to national service purposes.

• Beyond the direct and substantial educational value of the service experience itself, national service participants would earn a period of post-high school education and training. Much of the current federal aid to education would be shifted to support those who had participated in national service, either civilian or military. As with the old GI Bill, educational benefits would be proportional to length of service.

• Civilian youth service would exist independent of the military establishment because the need for national service transcends military recruitment policies. Should a military draft be needed, persons volunteering for civilian service would bear a relationship to the draft comparable to those volunteering for military service.

These are the rough outlines of a national service program. We believe these are the best choices, but only time and experience will tell. National service is a broad and flexible idea. Above all, there should be experimentation and evaluation to identify features that work best.

The idea of national service has potential far beyond the program described. For example, national service is generally discussed as a program for the young people, but it could be adapted to older adults as well. As the population of the United States ages, and especially as the baby-boom bulge enters retirement in the next century, it may be necessary to ask older adults to participate in productive activity to meet the great expense of their own support. A flexible and diversified national service program could help meet this challenge.

There is also no need to be constrained by national boundaries. International service is a desirable option. In a world of interdependence and international tension, the value of international projects is apparent. There are secondary benefits as well: for example, the positive impact of the Peace Corps in influencing participants toward diplomatic and other international careers has been well documented. It would be shortsighted to ignore these possibilities.

National service is a broad idea of great potential. Constructive and hopeful in approach, it focuses on what people have to offer rather than on problems and deficiencies. At a time when the nation is so stagnantly preoccupied with its problems, implementing a national service program would be a breath of fresh air.

The nation’s young people are ready and able to contribute. They do not want a free ride. The challenge is to find a vehicle that will enable them to move ahead under their own power and creativity. National service may be such a vehicle.
CAPITOLIZATION

Three members of Washington University's alumni body serve in the Ninety-seventh Congress of the United States of America: Senator Alan Dixon of Illinois, Representative Tom Coleman of Missouri's Sixth District, and Representative Hal Daub of Nebraska's Second District.
Although the mantle of authority rests lightly on the shoulders of Alan Dixon, the junior senator from Illinois, he does not take its responsibility lightly. He is comfortable with it—as an old hand at government service and politics, as a veteran spokesperson for the people of his state, as a gentleman able to fight, but without malice.

"The issues here are bigger—more important and more complex—but you still vote yes or no," he says sagaciously of his move from Illinois to national governance.

"There," says Gene Callahan, the second in command of Dixon's senate office, "that's Alan Dixon." He points to a homily taped among many on the partition wall of his makeshift "private" office. "The one that says, 'Take your work seriously, but don't take yourself seriously.' That's Alan."

Callahan and Wade Nelson, Dixon's press secretary, usually arrive at the office very early—most of the time by 6:30 a.m. Together they have read and clipped three national and one Chicago paper to have the day's news important to Dixon on the desk in his office when he arrives. The devil-may-care spaciousness of that office is belied by a neat but tiny reception area from which visitors weave around and between staff desks to "the boss." Sixteen persons occupy Dixon's four-room public suite in the Dirksen Senate Office Building. The remainder of his Washington staff is housed in two other locations within the building. (Offices are allotted by seniority.)

On the day Callahan spoke he had come in at 9:15, having stayed to help his wife clean up after an all-staff party hosted on the anniversary of Dixon's election to the Senate. "Alan said last night that if he never served another day in the U.S. Senate after his current term, he wanted those who worked with him to be able to say, 'Alan Dixon tried to help people. He was kind, and he was gracious when he tried to be kind.'"

The codicil seems unlikely, however. In a thirty-year political career, Alan Dixon has never lost an election. He wonders now, a little bemusedly, how in 1949, right out of Washington University School of Law, he won his first term in the Illinois house. "I'm not sure I'd have voted for me. I was so young," he said. From the outset, he has been an independent, "down-state" Democrat, accepted by, but not part of, the powerful Daley machine. For years, he bided his time, building power and constituency. In 1971, he moved from the Illinois legislature to the office of state treasurer and in 1977 to secretary of state. In 1981, realizing that at last he would not face an impregnable Chicago powerhouse, he ran for and won the seat of the retiring Adlai Stevenson.

Dixon is a man of irrepressible good humor. It serves him well, levelling the steady pace of his Washington day and injecting a reasonableness into the demands that pace puts on his staff. Though he steadfastly maintains contact with his constituents, he refuses to leave the capital while congress is in session. "Ah, my good friend," he said by telephone to the dean of a law school that had asked him to attend a ceremonial occasion. "I'd be honored to attend either of the two periods I mentioned, but I can't otherwise. My people didn't send me here to miss roll calls." After a short, jolly telephone exchange with a friend lobbying for some special interest, Dixon chuckled to Nelson, "Tom always asks the easy things. Bless him."

His veteran political career has established him firmly in some camps. He disclosed campaign financing long before that became the law of the land. He has been pro-ERA almost since the issue surfaced. "I'm conservative fiscally and moderate on social issues," he says. "That's pretty much where the good people of my state are." He plies those policies now as a member of the Senate committees on agriculture, nutrition, and forestry; banking, housing, and urban affairs; and small business. As a freshman, his committee rank is lowly, but that doesn't bother him. If he is the new kid on the block, he's moved in full of savvy.

"I think I have a pretty good sense of what my folks in Illinois want," he says. "I've been in public life, after all, for all of my adult life. I don't say I'm always going to be right. On any given vote you offend some groups; all of us have some special interests. I don't find that offensive. The key is to serve the larger interest while being conscious of the special interests. That's a sense one acquires after being in this business a long time."

"I sometimes wonder how people when they first come into it do as well as some do. I see some freshmen who
have no background in public service who do quite well. And I think that is quite remarkable, because it is a very difficult business, even when you have a good, hard-working staff. That makes you more comfortable."

Dixon can say, quite without chagrin, "I have good relationships with everybody. I fight the good fight—my people say sometimes my oratory sounds a little like a Baptist minister—but I never debate in anger. People come here quite critical sometimes. I accept it and say that I'm sorry we can't see eye to eye on this one, but they ought to understand this: I've cast thousands of votes in my political career and if my mother or my wife looked at them, they wouldn't agree with a substantial percentage of them.

"Quite recently a Chicago group that has been sharply critical of some of my budget votes wanted me to sign a petition on another issue, guaranteeing that I would vote their way. I said that I may well do that, that on several related issues I already had, but I wouldn't sign a petition guaranteeing my vote. Very seldom does a bill come to you as purely as it has been debated in the public forum. There are always amendments that add shades of gray. I said I hoped they wouldn't take offense, but I was their elected representative to the United States Senate and they'd elected me to exercise my sound judgment. And I had to do that. And they said, 'Well so and so congressmen have signed.' and I said, 'Well those are all good people; those are my friends, those congressmen, but if they want to sign, let them sign. I won't.' The point is, I never do anything like that with bitterness. I never mean anything offensive. I never take offense. I try to do everything with good grace."

One of the congressional commentaries says of Dixon: "He is a hard-working senator, but a quiet one with a distaste for controversy." His staff, some of whom have been with Dixon for nearly a decade, disagree with the latter viewpoint. They are fiercely loyal to a man they feel is too open, too sincerely gracious, but also too committed to be undervalued as a force. But they too are willing to wait graciously. Dixon, they say, has two other attributes—patience and staying power.
Tom Coleman, United States representative from Missouri's sixth district, is one of a new breed of conservative, under-forty congressmen who have come to Capitol Hill as dedicated students of the science of politics. Coleman, who won his seat in 1976, before the national electorate swayed heavily to his views, has with soft-spoken determination cannily pushed that time advantage. In six years, he has become the ranking Republican on two subcommittees of the important House committees on agricultural and education and labor.

On both sides of the aisle of the House floor, Coleman is looked to as a leader on issues of food stamps and student loans. That position has come by careful selection and hard work rather than by accident or seniority. Politics, as Coleman practices it, is to be approached seriously, with competence and method, but without pyrotechnics.

At William Jewell College in Liberty, Missouri, Coleman decided on a career in politics. He majored in political science and history and honed leadership skills through campus activities. When he won a fellowship to New York University, he took a master's degree in public administration. But there he concluded that he needed to study law. He came to Washington University School of Law without any intention of entering full-time practice on a permanent basis. "Law school helped me be well equipped to do what I wanted, but I have never gone through anything as bad as being a first-year law student. It was tremendous training. I got out of it as much knowledge of the law as I needed, a mental toughness (from personal trial, being buried in information, being put under pressure, and surviving it all), and the ability to think like a lawyer (to analyze different situations in an organized, thorough manner)."

By chance, he and his wife attended a fund-raising dinner for Jack Danforth, then running for Missouri's attorney general. Impressed with Danforth, Coleman worked as a volunteer in that successful campaign and after graduation joined Danforth as an assistant attorney general. He served two terms in the Missouri House before seeking his present seat in 1976, at the same time Danforth sought and won his Senate seat. "I consider Jack Danforth my mentor. I admire him greatly both personally and professionally," Coleman says.

Knowing that a congressman's opportunity for significant leadership most often lies within his committees, Coleman carefully selected and diligently pursues that service. "The first thing you do here is select your committees by deciding where you can have the most influence—that's what it's all about—on matters important to your constituency. I was raised in Kansas City, but I have a lot of rural areas and agribusiness is important to Kansas City, so the agriculture committee was obvious—I was also on that committee. Then, I chose education and labor because that deals with senior citizens—Missouri has a high concentration of older adults—but also because education was important to the people in my district."

"The sheer volume of congressional work makes it impossible to master all issues thoroughly, but by concentrating, by making use of the committee's staff, you can gather information, bounce ideas around, and become an expert. That's important." His subcommittee leadership has drawn Coleman into important House/Senate conference committees. Last spring he was the arbiter between the Senate (led by Jesse Helms, R., N.C.) and House positions on food-stamp legislation. He says with obvious pleasure, "We ended up, through give-and-take, putting together a consensus to accept much of the more moderate House position."

But then later, as the ranking Republican arguing the administration's position on student loans, I lost a lot. My bill was essentially restructured."

Coleman sat last fall on the House/Senate conference which struggled for months, to reach decisions on four-year farm subsidies. Amid the polished wood panelling and crystal chandeliers of the Senate conference room with soft background music constantly punctuated by beeper announcements, senate and house representatives crawled through the farm commodities price supports one by one, confirming in the gentlemanly language of tradition ("The Senate recedes": "The House recedes") the compromises agreed upon in small private meetings. With political posturing as precisely predictable as the ballet, the work diverged for solo performance, then meandered back to the task in concert only to reach a public impasse quickly. On such an important issue as a farm subsidies bill, no oblique approach could be neglected.

Tom Coleman accepts this with good humor. Such are the ways of the political system he is happily a part of. "There's a new breed of congressmen in Washington now," he says. "They're younger, they have much more in common with their constituents. More and more the old guard is being replaced. Half of the members here have come in the past six years."

Although Coleman is among these, he is not, he says, a member of the new right. "I'm a practical, realistic person with a conservative bent. I'm lucky that my own philosophy is consistent with my district's, which is quite homogeneous." Nevertheless, Coleman works hard in keeping in touch with his grass roots support.

He fought on the home front through the winter for his political existence. Missouri's redistricting threatened to eliminate Tom Coleman's seat, but the current judicial proposal simply extends...
it much of the same piece—with largely rural counties.

In Washington, Coleman maintains a fairly normal work day, reserving evenings and weekends for his family. He and his wife, Marilyn Anderson, who graduated from WU with a major in German, and their three small daughters live in northern Virginia in a home purchased from former North Carolina Representative and St. Louis Cardinal pitcher, “Vinegar Bend” Mizell, who returned home defeated.

Back home in his district, Coleman says, “Days often stretch into twelve and fourteen hours, but here, aside from taking home reading, I try to skip the social events. That’s one thing I disliked about the Missouri legislature. Any kind of sane home life and law practice was impossible.”

Coleman is at ease with his political profession by now, the master of it by dint of intelligence, hard work, and careful preparation. “A freshman congressman is under a lot of pressure,” he says in recollection, “but it’s far better than being a freshman law student.”
Hal Daub is a curious blend of idealism and pragmatism, enthusiasm and sophistication, Nebraska and the world. When, as the freshman United States representative from Omaha, he speaks of "coming back here" he refers to a three-month clerkship served in the office of North Carolina Senator Sam Ervin in summer 1963, between his graduation from Washington University and his entry into law school at the University of Nebraska. For him, that is not incongruous, because from that time to this, he always meant to return. He believes in the work to be done.

Although active in Nebraska Republican politics since 1970, he had said he would not seek public office until he was financially secure. In 1977, slightly ahead of his timetable, he ran for his present seat and lost, but showed unexpected strength. By 1980, his opponent, seeing the handwriting on the wall, had withdrawn from the race.

Daub's zeal is missionary. Every forum is a soapbox. He comes from behind his desk to stretch out in a chair, saying, "I hate it back there." On the television monitor, he watches the House convene and adjourn in three minutes to stretch the Veterans Day holiday into one more day in home districts. "Look at that!" he cries. "Disgusting! I was elected to come back here for serious business, not to worry about being reelected. I'm here to do a job, to be innovative. There is a revolution underway in government to redefine the federal presence in the life of this country, and I'm delighted to be part of it."

"We've started with spending reductions, but that's not what is really important. We've got to undertake the whole process of 'debureaucratizing.' I know that's not a word, but I feel very strongly about finding terms that people can understand. We've got to streamline and target an appropriate federal role to shift, over time, the center of government back to the local community. The toughest job in politics is being a mayor. "I'm one of the original introducers of a bill that Senator Roth (R., Delaware) has been working on since 1973 to install the legislative machinery for executive branch reorganization of all federal grant programs. That's very important. With the present system, it gets stalled and eventually buried.

"What we've done so far on budget cuts is a start. We haven't eliminated entitlement programs. I don't want to do that. I've got a 60,000 minority constituency; I know their problems. I want to redefine the population of eligibility. Many of the 1960s social programs were successful, but they aren't now. We've indexed poverty so that the class has gotten so big, it's crowding out the truly needy who aren't sophisticated enough to complete anymore.

"The men who framed the constitution made the House the watchdog of spending because House members are closer to their people. But in the last five years the House has authorized a $300 billion debt for social programs that are sapping productivity. They haven't created one new productive job.

"I didn't come here to learn as a freshman. I'm learning a lot, but I also want to get busy. I'm a businessman. I want government to operate on a more businesslike basis. It can't be a business, but it can look at workers as shareholders whose capital it is spending and be responsible to them."

Despite his impatience, pragmatism, and resolution—perhaps also because of them—Daub can be as excited about being on the floor of the U.S. House of Representatives as a September third-grader at his first cub scout meeting. A staff member smiles congratulations on his exciting day yesterday. He explains that the previous day he spoke twice in the House. "I introduced a bill designed to suspend, until the budget is balanced, senior federal executive bonuses. (It amounts to about $8 million and I think we're sending a wrong signal with it. As a businessman, I couldn't pay my employees bonuses if I were running in the red, no matter how hard they worked or how good they were. It's a fine federal incentive, business uses it often, but not in these times.) "And I made a major statement on bankruptcy reform. I did these both orally on the floor, as opposed to just submitting something for the record."

He is both pleased and impatient in Washington. The impending "cabinetization of the House and Senate" worries him. "The crime of public service right now is grandstanding. I wish it weren't so glamorous. People fall into making more of it than it is. It's fascinating and frustrating. Yesterday was one; today is the other—a three-minute session. In ten months, I've spent 120 days in my
district. That's my security blanket—the people of Nebraska and their good sense—but this can't be a Tuesday, Wednesday, and Thursday club. There's too much to do for that."

"Back here," says Daub, "I'm as good as my staff, but I've never been good at what I was doing from the beginning. I've always gotten better. I was valedictorian of my high school class and my college board scores were lousy. I made terrible grades my first semester at Washington University, but in my senior year I was president of the student body and made pretty good grades. It was the best education I could imagine for me. I loved it."

Hal and Cindy Daub, who is Korean, have three children. Of Natalie, John, and Tammy, their father says, "They're delightful children and real achievers."

Daub is full of bywords and familiar phrases. His life priorities are "faith, family, and business." He serves in congress not to bring leadership, but the "good thinking of Nebraskans and their philosophy of hard work." The flags of the U.S. and his state stand outside his office "to express my commitment to constitution, constituency, and conscience." If he has achieved or will achieve anything it is "because of the positive influence of my mother and father, my scouting, Washington University, the military, my Christian work, and my wife and kids."

It is all Dorothy, Aunt Em, common sense, heart, and courage. All unabashedly corny; all sincerely Hal Daub.
Michel Ter-Pogossian (right), professor of radiation sciences, under whose direction the PETT scanners have been developed.

PETT VII, newest in a line of positron emission transaxial tomography scanners designed and built at Washington University specifically for heart and brain studies, is undergoing final testing before being moved to the Medical Center’s Coronary Care Unit.
Images of the Heart

In the language of diagnostic medicine, "scan" has become a household word and technology. Today's descendants of the x-ray, scans are procedures which permit detailed, in vivo study of body organs by taking a series of photographs that in concert give a three-dimensional image.

Within Washington University School of Medicine's division of radiation sciences, however, scanning is being carried to another level of sophistication as a research tool by positron emission transaxial tomography (PETT) developed specifically for heart and brain study. Under Michel Ter-Pogossian, Ph.D., professor of radiation sciences, an interdisciplinary University/Mallinckrodt Institute of Radiology team (John Hood and David Fickel) has built a series of PET (the generic acronym) scanners, each a technological advance over its predecessor.

The latest scanner, nicknamed Super PETT (PETT VII, by number), is undergoing final testing within Mallinckrodt. It will be moved to the Medical Center's Coronary Care Unit, where it will support diagnostic studies under the direction of Burton Sobel, M.D., and colleagues, the substance traced is radioactive tag travel with the speed of light. Super PETT is an attempt to receive at this speed.

"But, to go back to more practical matters: The advantage of improving the spatial and the contrast resolution is obvious. We can see things smaller and with more differentiation. But particularly with the heart, being able to image faster is crucial. The heart moves with respiration. If our process takes a relatively long time in relation to respiration then that motion blurs the image."

A triumph of Super PETT is that it is fast enough to be used while the patient holds his or her breath. (The images will be taken in a period of from fifteen to twenty seconds.) That breath-holding will eliminate the respiratory heart movement. The second triumph is that the increased signal-to-noise ratio will give better spatial and contrast resolution as well.

The PET scans are used to learn how the heart or brain functions in normal and diseased or damaged states. They are designed to trace the use within the organ of certain natural substances that for this purpose have been artificially labeled with diagnostically important, but short-lived, radionuclides. The radioactive atoms—which emit penetrating radiation that is picked up by the scanner's sensors and is reconstructed as a series of photographs—are produced by the medical center's cyclotrons and quickly converted by radiation chemist Michael Welch, Ph.D., and his colleagues to the more complex molecules needed for PET scanning. These compounds are introduced into the body by methods developed here and elsewhere, and the body distributes the radionuclides throughout the organ under study.

For the cardiovascular studies carried out by Sobel, Ter-Pogossian, and colleagues, the substance traced is radioactively labeled ¹³C-palmitate, the main energizer of the heart muscle. Brain studies with PETT VI, under Marcus Raichle, M.D., and colleagues, trace radioactively labeled oxygen. Other cyclotron-produced isotopes used are nitrogen, carbon, and fluorine.

Transaxial tomography by the PETT scanners records a series of images that picture the distribution of the radio nuclides and thus show how the organ is using the labeled natural substance. Through these, clinical researchers gain new insights into body function and malfunction.

Super PETT, as its nickname indicates, is a major step forward in scanning technology. Ter-Pogossian explains: "We are one of three groups in the world—here, in France, and at the University of Texas—trying to incorporate the utilization of the speed of light into the reconstruction process. The use of this principle greatly improves the 'signal to noise' ratio of transaxial tomography."

The signal-to-noise ratio represents an important key to clearer images. As with any receiving device—be it the human or a mechanical eye or ear—the clearness of the signal depends not only on its original strength, but also on the amount of interference encountered between the source and the receiver. "Noise" is the generic term for such interference.

"The three factors critical to improvement of the imaging we are doing are spatial resolution (our ability to distinguish small structures), contrast resolution (our ability to distinguish small differences in contrast in portions of the organ), and temporal resolution (our ability to generate an image in a very short time). The optimization of all three factors can be improved by raising the signal-to-noise ratio."
In the classroom, Laskey is seldom still as he coaxes, cajoles, and exhorts his students to think. The problem at hand is to construct a chair. Freshman Robin Schnitzler squeezes into her model as Laskey critiques it.
Designer Leslie J. Laskey, who has taught at the School of Architecture for a quarter of a century, is a living legend. A charismatic professor, he is also the doyen of St. Louis's Central West End to a group of talented folk who meet with him regularly at his residence. Artist, sculptor, and American guru, Laskey is a man of inimitable style.

If you amble through St. Louis's Central West End, you may come upon an exquisitely proportioned townhouse identified by its persimmon-colored door balanced gracefully between a pair of jet black obelisks. Rumored once to have adorned St. Louis's historic Chatillon de Menil, these ornaments were discovered some years ago in an antique shop by Leslie J. Laskey, professor in the School of Architecture. He promptly trundled them off to the handsome home he shares with Igor, a conure given to sudden outbursts, and two feisty Lhasa Apsos, Shogun and Nobu.

"I bought this place more than twenty years ago, at a price I couldn't resist," Laskey confided, "and I'm just now getting used to it." It was a serendipitous find for Laskey, a designer trained at Chicago's Bauhaus-in-exile, the Institute of Design. The three-story structure is the work of Frederick Dunn, a gifted architect whose residences are coveted by those who appreciate the style and grace of his work.

This spring, Laskey has been the center of attention as three shows commemorated his quarter century of teaching at Washington University. They opened simultaneously on March 3, just before Laskey winged off to Amsterdam to spend a part of his spring holiday with Onno Greiner, a Dutch architect who was a visiting professor in 1980.

In the review room of Givens Hall, the building where Laskey continues to teach six days a week, he presented a continuous slide-show retrospective of his work. At the same site, another showing featured a collection of folios by alumni, each of whom contributed an eleven- by seventeen-inch woodcut went on display. It is work by nine artists who have studied privately with Laskey. Originally, Majel Chance Obata and Jane Sauer were to have an exhibition there from March 3-27. Instead, they generously decided to share their space with other Laskey students in unique homage to their mentor. Others represented were: Mary Colton, Denise Eyerman, Marjorie Hoeltzel, Anne Krone, Robin MacKesson, Queenie Schiele, and Alice Goodman.

They are part of a larger assemblage of creative individuals who gather regularly at Laskey's home which is, in a sense, a salon extension of his Givens Hall studio. Those who study at his home share a learning experience which, while different in style and content from that of his campus classroom, is, nonetheless, as intense and personal.

This special communication between Laskey and his students prompted Joseph R. Passonneau, a former dean of the School of Architecture and a man respected for his knowledge of archi-
Like Nowicki, Laskey is a legendary figure, and for that reason it is difficult to separate man from myth. Dozens of stories, embroidered and exaggerated as they flow over the grapevine, circulate about him. Though much of this fanciful speculation is impatiently dismissed by his colleagues as superficial conjecture, even some of them claim not to know Laskey well. "I don't think anyone does," said Carl Safe, a friend and fellow teacher for more than a decade. Rumination about this response, Bruce Stahnke, a graduate student and Laskey's teaching assistant, commented "to know all about Laskey would be very difficult because he is constantly changing. He is a real protean character. And, yet, he is personable and doesn't keep people at arm's distance. So I think that people do know him, but no one knows all about him."

There are, however, quite literally, legions of people who care about him, and many were moved to say so last fall when Laskey and four former architecture deans were honored as part of a Givens Hall fiftieth-birthday celebration. On that occasion, some of the normally reticent astonished their former classmates with the eloquence of their toasts to Laskey.

One of these was Werner Maassen, another of Laskey's teaching assistants, who majored in architecture as an undergraduate, left academia for several years, and then returned to earn the master of architecture degree in 1980. He was among those who rose with a prepared text. He good-naturedly retrieved it recently from a warren in the SI. Louis carriage house where he lives. Woven into the fabric of his tribute were several Laskey aphorisms including: "Work is often mistaken for achievement" and "Success comes in cans, not cans!"

During his twenty-five years as the senior professor of basic design—the two-year core curriculum required of all freshmen and sophomores

—Laskey has been a seminal figure. Perhaps Gay Goldman, an alumna and now a fellow faculty member, expressed his influence best when she said, "Students look back on their first few years in architectural school as the most enthralling and enhancing time in their education. Laskey brings magical wonderment, fresh searching, and seriousness to the task of learning."

As an exacting faculty member herself, however, she recognized that no teacher, except in a schmaltzy movie like Good Morning, Miss Dove, is universally revered. Learning is frequently a painful experience, especially under someone like Laskey whose methods are unorthodox and whose standards are exceptionally demanding. Alluding to this struggle, Goldman wrote, almost in free verse:

"The students ... they react, they rebel, they hate, and they love. They are never the same after their sensory and mental experience with Laskey; they have begun to think and have awareness."

For some students, awakening occurs in school; for many others it does not become apparent until they have practiced architecture for a few years. Joe Passonneau underscored this latent appreciation of Laskey in a letter to him recently. Writing from Washington, D.C., where Passonneau now practices, he stated: "As I told you, and as I suspect you know, students—after leaving the School of Architecture (on the basis of my not insubstantial survey over many years)—felt you were the teacher who had the most useful influence on them."

Laskey said nary a word about this trenchant compliment but, fortuitously, it surfaced, as did much else about him. A great deal of what was collected came from others, because Laskey himself eschews publicity. Frank H. Schwaiger, Jr., an architectural alumnus and a close friend, attributed Laskey's aversion to self-aggrandizement to the fact that "he doesn't care for pretense. His reputation is spread solely by word of mouth from people he has helped. Laskey has received little media support. He doesn't really believe in it; he believes that if he does his job well, just rewards will come. That's a very interesting point of view."

It is an assessment underscored by Laskey himself, who after suffering through yet another hour of interrogation for this article, never failed to inquire, "That's all now. You won't need me anymore, will you?"

Despite his reticence, however, Laskey's reputation for infectious enthusiasm and his gift for stretching students' minds has not gone unnoticed. Ironically, this man who seems to loathe the limelight as much as the reclusive Garbo found his every movement and comment in class being conscientiously recorded by an inquisitive young woman, Rebecca Glenn of the Graduate Institute.
of Education. A few years ago, she dutifully sat in on one of his studios for almost an entire semester. It must have been an excruciating experience for him comparable perhaps to a sensitive creature being subjected to intense and ceaseless laboratory scrutiny. But he and his students, who were also the subjects, somehow survived.

Although Glenn has misplaced that term paper, she had no trouble recalling its general conclusions. Laskey's students, she explained, were awed by the breadth of knowledge that enabled him to make connections between seemingly unrelated topics almost effortlessly. This talent is definitely a Laskey trait. He is fond of bounding into class with a bit of newsprint hastily torn from *The New York Times*, or a poem. Though these may seem totally disparate, he has an uncanny way of tying them together with a class project. The performance leaves the most blasé of his students flabbergasted.

Glenn also noted students were astonished by Laskey's commitment and concern for them as individuals. The students realized that, somehow, he was able to discern what they were thinking and to assess their potential. As a part of this personal giving, each week Laskey invites small groups of students to dinner. He tries to entertain all at his home at least once during the semester. These gatherings become memorable events.

On such occasions five or six first- and second-year students gather around Laskey's table for a dinner he has prepared himself. Laskey, who delights in cooking, spices a serving of ratatouille and salad with lively conversation. At a recent dinner someone mentioned a St. Louis showing of classic furniture by Eileen Gray (1879-1976). Laskey, nodding knowingly, proclaimed her his favorite designer, thereafter entertaining his guests with a tantalizing account of her career. He is a man of many enthusiasms ranging from the television program, *Hill Street Blues*, to theatrical designer Peter Brooks who has done a "marvelous book, *The Conference of the Birds.* He is one of the people who has changed my life," Laskey confessed. "I don't know him, but his attitude about directing and amalgamating a group is very much the way I work with students."

Another Laskey favorite is Kennedy Fraser, the author of a new book, *The Fashionable Mind*, and a fashion writer for the *New Yorker*. A reference in her new work reminded him of the post-modernists who are *au courant* at the moment in architecture. "I think that the whole style flirts with historicism and classicism. It is too fashionable. It sets itself apart as it fails to plug into a lot of other things." Asked what else he was reading, Laskey rattled off enough titles to fill a good-sized shelf. He thrives on about four hours of sleep a night, and sometimes begins reading at three or four o'clock in the morning. At the time, he was into *A Mind's Best Work*, and a Lyle Watson book, *Super tide*. "He did a book, *The Gift of Things Unknown*, about creativity, and another, called *Supernature*." Laskey said, "I'm also rereading a book that my students are working on called *Origins of Form* by Christopher Williams."

Laskey's tastes are catholic. "Right now," he confessed, looking forlornly at the snow drifts in his garden, "I get homesick for my land out there, so I'm into *In and Out of the Garden* and *Green Thoughts*. And I chew up mystery stories like peanuts—two or three a night."

That he finds time for such omnivorous reading is the more astonishing when one reflects that in addition to teaching every day but Sunday, he is also an artist who does bold, powerful woodcuts, imaginative collages, dramatic abstract paintings, sensitive and sensual prints, curious, clever sculpture, exquisite jewelry, and meticulous needlepoint designs splashed with rainbows of color. In making art, as in teaching, he explores, to paraphrase reviewer Linda Skrainka, "the world visually, intellectually, and spiritually... making connections across cultures and ages." In 1979, after seventeen exhibitionless years, he presented "Rags and Ragas," breathing life and vitality into discards—the kind of stuff scavenged by the bag people and pickers of this world. Last spring, he showed works with Oriental flavor, some on rice paper, which he cherishes, and some canvas constructions "cut, layered and folded," as critic Mary King noted, into abstract ceremonial robes hung on bamboo rods. These reflect Laskey's suppressed desire to design avant-garde clothes in the manner of Shamask.

Laskey is spiritually linked to the Far East and a preoccupation with Buddhism permeates his work and his life. Meditation, in which he finds strength and serenity, has enabled him to eliminate the stress he senses caused a series of heart attacks suffered three years ago. This reflective quality with its emphasis on the intuitive and mystical is very much a part of his personality and his art. He has a special affinity for Basho, and is devoted to one of his haiku poems: "Do not copy the ancients, but..."
Architecture by Design

Stanley and Alice Goodman, avid collectors of Laskey’s work and his devoted friends, reminisced recently about the joy and inspiration that this genius brought to the city. “Shiko Munakata changed our lives,” Stanley Goodman exclaimed. “This extraordinary, explosive, little man is one of the six most memorable people whom I have met during my lifetime.” Laskey, too, was overwhelmed. “I think of him as my aesthetic father and my master,” he explained. Then, in an obvious effort to leaven his comment and lift the sadness that he feels at Munakata’s death, Laskey recalled the ritual of driving him to campus each morning. “His wife insisted that Munakata leave the Forest Park Hotel elegantly garbed as she thought befitted an artist on his way to an important university, and he respected her wishes. But as soon as we were underway, he would clamber into the back seat and change into his work clothes,” Laskey concluded with a chuckle.

Laskey’s astonishing versatility is, of course, attributable to his talent. His Polish-Scandinavian heritage may have something to do with that; a providential mix of DNA is probably also a factor. For whatever reasons, Laskey is singularly blessed with creativity nurtured and honed at the Institute of Design which Moholy-Nagy established in an old H.H. Richardson building at Ontario and Dearborn streets in Chicago. “It was marvelous to have one of the great modern schools of architecture and design in this ‘rock’ with all the winos hanging around.” Laskey exclaimed with his gift for the picturesque. “It opened up corridors where I could learn about drawing, sculpture, industrial design, and whatever else struck my fancy there. They used to call this kind of training a foundation course, and it was precisely that for me. It enabled me to put all of these things into a kind of context—a tapestry of thought. And that’s what I am good at,” he added. “At least I think I am!”

Inevitably, because he completed his training in visual design at the New Bauhaus (his Bachelor of Science degree awarded in 1951 is from the Illinois Institute of Technology which absorbed it), Laskey has had to tolerate some good-natured teasing lately because of Tom Wolfe’s satiric attack on the original Bauhaus founded in 1919 by Walter Gropius in Weimar, Germany. Like most serious critics of the book, From Bauhaus to Our House, Laskey believes that Wolfe’s version of the origins of modern architecture is flawed. But the simplistic analysis neither surprises nor seriously annoys him. “People are always dissatisfied with their environment. They complained about the early skyscrapers, and before that about cast-iron buildings. Well, we’ll survive. One of the things that twenty-five years of teaching has taught me is that, somehow or other, we survive.”

He emphasizes, however, that what he teaches “is not a watered-down Bauhaus curriculum. I tailor my methods to fit the needs I sense in students at the moment. They must become aware of themselves and sensitive to the materials of this century. And I make them work very hard,” he admitted. “When I assign a problem, I insist that they think about its limits, its requirements, and its demands. My intent is to let them learn by giving them ideas.”

Werner Maassen was more explicit. “Leslie Laskey has dedicated a great deal of his life—not only to teaching, but to teaching people how to think creatively. In a sense, he is a catalyst who helps his students to discover on their own.”
Gay Goldman used an earthier metaphor. "Good students choose teachers who, like Leslie, work with your guts and not just your head."

In his book Masters--Portraits of Great Teachers, Joseph Epstein, editor of The American Scholar and a teacher himself, suggested "that teaching is a performing art. Not only must the teacher get up his subject, but he must get it across."

Laskey shares this view. "It certainly helps to be an actor," he admitted. "Some days, I feel like John Barrymore. That's when I really have to pull out all the stops. I think that you must do this with your voice, your body language, and even the way you dress. To succeed I think you really have to set up the place because teaching, at least for me, is an engagement."

The analogy is particularly appropriate because for a brief period after World War II, he considered becoming either a thespian or a director. With this in mind, after three years of Army service he headed for New York. Laskey tends to telescope his wartime experiences and the years he spent in Manhattan. Trying to sort out the sequence is somewhat akin to watching a Fellini flick with the flashbacks exploding so furiously the effect is like a distorted montage. "I had two invasions under my belt, one on D-Day and another at Marseilles," he usually begins. Then he alludes to service as a cryptographer and photographer. "It was all very long time ago," he mutters impatiently, "and I didn't know how in the devil I was going to get out, or even if I ever would."

When he did, he hopped around the "Big Apple" like a Mexican jumping bean. Various and sometimes simultaneously, he worked in advertising, as a gofer on the fringes of Broadway, and at the Palace Theatre as an usher. Meanwhile, he failed a screen test, studied languages and singing with coaches whose names he has forgotten, and ran to classes at Pratt Institute. "It was all," he recalled, "marvelous, but I wouldn't do it again." And, then, he added with the characteristic candor that sometimes startles his students, "I didn't really know what the hell I was doing half of the time."

Bill Breger, a teacher at Pratt, inspired Laskey's interest in architecture and recommended that he enroll at the Chicago Institute. It was there, he says "that I suddenly got turned on by the fact that what I taught as a teaching assistant, I also learned. There was no division. I think that's what I do still. I compare teaching and learning to a mirror and a candle. You get back more reflective light than you give sometimes. And I tell my students, I don't know which I am—the candle or the mirror."

After graduating, Laskey was an instructor at North Carolina University's School of Design at Raleigh from 1952-1956, but for a year during that time he studied graphic arts at Indiana University on a Rockefeller grant. He worked there with Seong Moy, earning the master of arts degree in 1953. While at Indiana he wrote and illustrated a book of poetry. "I set the type, ran the press, and even bound the edition of 150 copies." Later Henry Kamphofner, the head of architecture at North Carolina State, recommended Laskey to Buford Pickens, then dean of Washington University's School of Architecture, and Pickens hired him. Picken's successor, Joe Passonneau, encouraged Laskey to invite brilliant visiting faculty to the school, Laskey's invitations brought ceramist Clayton Bailey; H. C. Westermann, a major sculptor who died recently; Torsten Johansson from Copenhagen; Livio Bernasconi, the prominent Swiss painter; Carel Visser, a Dutch sculptor; John McQueen, a master basketmaker, and many others. Meanwhile, Passonneau himself imported some of the most important architects of this century including Aldo von Eyck and the late J. B. Bakema and Shadrach Woods.

In time, Laskey teamed up with Sheldon S. Helfman, a painter who had just graduated from Yale, and together they improved and expanded the basic design program. It is no accident that neither is an architect, for as Jim Harris observed, one must learn design principles before focusing on architecture per se.

Laskey stays in touch with many of his former students, and it is not unusual for those who occasionally come to St. Louis to saunter into his studio or otherwise to ring him up from all over the country. Alice and Stanley Goodman still chuckle over a Dallas alumna who called Laskey to inquire what exciting ingredient he used to flavor his famous Swedish pea soup. "It was cucumber," Stanley Goodman recalled.

Perhaps Alice Goodman, who insists that she will never stop studying with Laskey, paid him the most moving compliment when she said, "The great thing about Leslie's teaching is that he does not try to make his pupils little Leslie Laskeys. What he does is to bring out whatever the person has within. What he does, you must understand, is to teach us a new way of seeing."

Nine artists who have studied privately with Laskey paid homage to him at another March exhibition--this one at the Martin Schweig Gallery. One of the members of this coterie, Denise Everman, and her husband, James, salute Laskey with a champagne toast.
For half a decade, much of the world’s scientific community was involved in a race to harness the power of atomic fission in a bomb. From 1943 to 1945, Los Alamos—a spot known to the outside world as Box 1663, Santa Fe—focused all other efforts. The race was run for the sake of humanity; fascism threatened. That fact was indisputable; the grave consequences of success were also.
Box 1663, Santa Fe

By Dorothea Wolfram

On December 7, 1941, chemists Art Wahl, Joe Kennedy, Sam Weissman, and David Lipkin were in Berkeley, California. Arthur Holly Compton was in Chicago; Arthur Hughes was head of the physics department at Washington University. Chemists Herb Potratz and Lindsay Helmholz were faculty members at the University of Denver and Dartmouth College, respectively. Louis Hempelmann was an instructor in radiology at the Washington University School of Medicine.

The Japanese attack on Pearl Harbor changed their lives, brought them together on a lovely windswept mesa in New Mexico to attempt a project that would change the face of the earth and its people for all time, and eventually also led them all to Washington University. But the chain of events that began this actually predated December 1941 by three years and took place not on the other side of the Pacific, but the Atlantic.

At the end of 1938 in Berlin, German radiochemists Otto Hahn and Fritz Strassmann positively identified barium (a mid-atomic weight element) as a product of neutron bombardment of uranium (the heaviest known element). Hahn's physics colleague, Lise Meitner, then in Scandinavia, and her nephew Otto Frisch immediately suggested that Hahn and Strassmann had split the uranium atom into almost equal halves and called the process "fission." Years earlier Italian physicist Enrico Fermi and his colleagues in Rome had observed, but had not properly identified, this phenomenon.

Within months renowned Danish physicist Niels Bohr told an international meeting of physicists in Washington, D.C., that nuclear fission released considerably more energy than any previously studied nuclear reaction. During the remainder of 1939, talk of the vast source of energy available by nuclear fission was everywhere, including the popular press. By then, however, Hitler had driven many (though far from all) of Europe's eminent nuclear scientists to the United States. Here they joined American academic centers which in the decade before had come of age scientifically.

On the west coast, California Institute of Technology in Pasadena and the University of California at Berkeley were such centers. In 1929, when Harvard-educated J. Robert Oppenheimer returned to the U.S. from graduate study in Europe, he took posts at both.

At Berkeley, Ernest Lawrence had developed his early particle accelerators into sophisticated cyclotrons (the second largest of which was built at Washington University in 1940 for the exclusive purpose of medical research). Also at Berkeley, however, was another renowned American scientist, physical chemist G. N. Lewis. In 1933 Lewis began study of isotope separation and in 1936 turned to study of deuterium (heavy hydrogen).

Both institutions attracted graduate and postdoctoral students from across the country. Chicagonian Lindsay Helmholz moved from Johns Hopkins to postdoctoral work at Cal Tech in 1934 and stayed as an instructor until 1939, when he left for Dartmouth. In 1936, Philadelphian David Lipkin moved from the University of Pennsylvania to Berkeley for doctoral work in organic chemistry and stayed to work under Lewis. Sam Weissman came from the University of Chicago to Berkeley for postdoctoral work under Lewis in 1941.

Glenn Seaborg, a Michigan student, completed Ph.D. work in chemistry at Berkeley in 1937 and joined its faculty. Texan Joseph Kennedy struck out for Berkeley for doctoral work in 1937 and remained as an instructor. Iowaan Art Wahl came to Berkeley for Ph.D. work in 1939.

At Lawrence's Radiation Laboratory in 1940, Edwin McMillan, an assistant physics professor studying the energies of the main fission fragments, identified element 93 (neptunium), a man-made product of a reaction of neutrons with uranium. He left for radar work at Massachusetts Institute of Technology before he proved his hypothesis that neptunium decayed to form a yet-heavier element.

In December 1940, Seaborg and Kennedy, both instructors in chemistry, and Wahl, a graduate student, bombarded uranium with deuterons (the nuclei of heavy hydrogen) to produce an isotope of element 94. By March, they had established chemically that they had found element 94 (later named plutonium). Because of its nuclear structure, says Wahl, they believed it to be highly fissionable. Emilio Segrè, one of Fermi's Rome colleagues by then at Berkeley, joined them to measure plutonium's cross sections (possibilities for fission) and in May, they reported it 1.7 times as likely as uranium 235 to fission with slow neutrons. From the beginning, says Wahl, they treated the results of their work as classified material.

As early as summer 1938 Hungarians Leo Szilard (at Columbia) and Eugene Wigner (at Princeton) sought U.S. commitment to fission research. They
approached Albert Einstein at Princeton to bring the war-time potential to President Franklin Roosevelt’s attention. Wigner enlisted a third countryman, the young Edward Teller, and in October 1939 economist Alexander Sachs, a friend, delivered to Roosevelt a letter from Einstein warning, “In the course of the past four months it has been made probable—through the work of Joliot in France, as well as Fermi and Szilard in America—that it may become possible to set up a nuclear chain reaction... This new phenomenon would also lead to the construction of... extremely powerful bombs of a new type....”

In response, Roosevelt set up an advisory committee on uranium, but the group made little progress until Vannevar Bush, head of the Carnegie Institute, took up the cause. (Interestingly, from the beginning the Navy saw atomic energy as a non-oxygen-using source for submarine power.) In June 1940, Bush persuaded Roosevelt to create a National Defense Research Committee to coordinate research concerning defense. The uranium project became part of the NDRC.

By then the work of Fermi (then at Columbia) and his colleagues on chain reaction with slow neutrons was promising. Cooperatively, physicist John Dunning, also at Columbia, proved that the isotope uranium 235 (occurring in natural uranium ore with the heavier uranium 238 at a ratio of 1/140) was the fissionable product. They also believed U-235 could sustain a chain reaction by fast-neutron bombardment. Clearly, separation of these isotopes was necessary for weapons technology. NDRC research, however, still could not promise a bomb was feasible.

British theoretical physics work finally established that the “critical mass” (the amount of U-235 necessary for chain reaction with fast neutrons) was small enough to make a bomb of reasonable size. On June 28, 1941, Bush prompted Roosevelt to create the Office of Scientific Research and Development. As its director, Bush (who turned NDRC over to James Conant, president of Harvard) would report directly to the President.

The attack on Pearl Harbor made the backstage effort to win government support superfluous, but had put the machinery for action in place. Within a week, Bush gave Eger Murphree, a chemical engineer, responsibility for the engineering aspects of uranium work and divided scientific aspects among three men already familiar with it. Harold Urey of Columbia would direct separation of uranium isotopes; Lawrence of Berkeley would guide small sample preparation of U-235 and experimental work on plutonium; Arthur Compton at Chicago would supervise weapon theory and chain reaction.

At the second meeting of his group in January 1942, Compton outlined his timetable: by July 1942 to determine whether a chain reaction was possible, by January 1943 to have achieved chain reaction, by January 1944 to have extracted the first plutonium from uranium, by January 1945 to have a bomb. To meet this timetable Compton brought his people from Columbia and Princeton (and later some from Berkeley) to work in Chicago. He also asked his former student, Joyce Stearns, chairman of physics at the University of Denver, to come as a leader of the Chicago group.

Their first goal was to achieve a controlled chain reaction. Fermi succeeded on December 2, 1942, in a squash court under the stands of the football field at the University of Chicago. He produced and controlled a chain reaction within a pile of graphite bricks in which pieces of uranium metal and uranium oxide were arranged. The Chicago graphite/uranium structure became “pile 1.”

At Berkeley, Seaborg, Wahl, and Kennedy led a team attempting to isolate element 94 to study its chemical properties. Lawrence himself applied a magnetic spectograph, a “calutron,” to separate U-235 from U-238. At Columbia, under Urey’s research on four diffusion methods—gaseous, centrifuge, liquid thermal, and electromagnetic—was pursued.

In September 1942, responding to Bush’s plea, General Brehon Somervell placed the uranium project under the Army’s wing with a three-man (Army, Navy, OSRD) decision-making committee. He assigned Brigadier General Leslie Groves, a West Point graduate with engineering experience, to administer the entire “Manhattan Engineer District.”

U.S. entry into the war had tightened security, but the Army intensified this even more. The uranium project was code named—with a misleading ring of truth—the Manhattan Engineer District. Compton’s Chicago group was called the Metallurgical Laboratory (MetLab). General Groves, although far from amiable or compatible with his new scientific bedfellows, had no trouble making decisions and acting upon them. Within two days of appointment he had secured a new
A-1 priority for his project and settled on a site for a gaseous diffusion plant at Oak Ridge, Tennessee. Within five months he had signed a contract with duPont to design and build a plant for plutonium production on the Columbia River at Hanford, Washington.

Before Groves's appointment, Compton had given Gregory Breit, a physics professor at the University of Wisconsin, responsibility for coordinating experiments on fast neutron reactions. When Breit resigned on May 18, 1942, Compton turned to Berkeley theoretical physicist Robert Oppenheimer. Oppenheimer asked for an experimental physicist as an assistant director. Compton appointed John Manley (University of Illinois) who was already at work at MetLab.

The success of Fermi's chain reaction and increasing laboratory evidence on plutonium's fissionability led Bush, Conant, Compton, and Groves to seek funds to move from laboratory research under OSRD to all-out production under Army supervision. Roosevelt approved on December 28, 1942.

With materials production authorized, the question of how to fabricate a bomb became preeminent. Oppenheimer and Manley, whose work bore most directly on this, were convinced a central laboratory was essential. Compton, reflecting on the progress MetLab had achieved by the free exchange of ideas and information among scientists, concurred. Groves also, though primarily for the opposite reason; he sought to scotch the information leaks experienced at MetLab. Both favored Oppenheimer as director. Ironically, Army investigators thought that suggestion itself a great threat to security. Oppenheimer's youthful left-wing politics and other factors bore on the question. Groves, however, decided to disregard this; he ordered investigation stopped and Oppenheimer approved.

He and Oppenheimer selected a laboratory site in New Mexico, thirty-five miles from Santa Fe on a mesa flanked by the Jemez Mountains and the Rio Grande Valley. It was purchased from Los Alamos Ranch School for Boys. In spring 1943, Oppenheimer became the recruiter for Site Y, its official designation. Its only known address was Post Office Box 1663, Santa Fe. (Indeed today, the birth certificates of any number of thirty-seven to thirty-nine-year-old Americans show that they were born at Box 1663, Santa Fe.)

By midsummer, Oppenheimer had organized his laboratory into four divisions. Hans Bethe, a German physicist working at MIT's radiation laboratory, headed theoretical physics; Robert Bacher, a Cornell physicist also then at MIT, headed experimental physics; Joe Kennedy from Berkeley headed chemistry and metallurgy (Cyril Smith, an industrial scientist, was directly responsible with Kennedy for metallurgy); Navy Captain William Parsons headed ordnance. The late Charles Thomas of Monsanto Company (later chairman of the Washington University Board of Trustees) coordinated chemical work at Los Alamos with that at Chicago, Berkeley, and Ames, Iowa. Thomas was also in charge of plutonium production.

To Los Alamos in the first wave of scientists came Berkeley chemists Kennedy, Wahl, Weissman (the old man at age thirty-one), Lipkin, and Morris Perlman. Lindsay Helmholz came through the division of chemical warfare. Herb Potratz came from the University of Denver. Physician Louis Hemplemann left Mallinckrodt Institute of Radiology, where he had been involved in nuclear medicine using the cyclotron, to be medical director. Several young medical school graduates, James Nolan, Paul Hagemann, and Henry Barnett, joined him. And Arthur Hughes left the physics department chairmanship at Washington University to become Oppenheimer's associate director in charge of personnel.

Oppenheimer's early intention was for a relatively small laboratory with some 300 to 450 scientists and support personnel. The population, including families, would be about 600. By war's end 6,000 persons lived at Los Alamos—with several hundred in chemistry and metallurgy alone.

Although Groves had objected, Oppenheimer had insisted that to recruit, families must be included. So beginning in March and April 1943, a community grew—hemmed in by high barbed-wire fences, isolated by the mesa itself, ruled tyrannically by Groves, who came and went from his other projects, sparked and nurtured by Oppenheimer. Voluntarily, the community left outgoing letters open to be read by censors; incoming mail was opened and read. There were few telephones.

In the beginning, work centered on a gun-type weapon with uranium 235 or plutonium as a core. Two subcritical masses would be fired into each other to induce chain reaction fission. Consideration of a thermonuclear fusion bomb, alive at first, soon diminished. Very early, Seth Neddermeyer, a Cal Tech physicist, introduced the idea of an im-
plosion instead of a gun bomb. Ordinary chemical explosives would be fired simultaneously from outside a subcritical U-235 or plutonium mass to compress it, thereby reducing the distance neutrons would travel to strike another atom to sustain chain reaction. By increasing its density, the subcritical mass would become a critical mass.

In summer 1944, with discovery that one of the plutonium isotopes was subject to spontaneous fission, it was clear that a gun-type plutonium bomb might predetonate. Either this isotope would have to be separated from the rest—which would negate plutonium’s great advantage over U-235—or the implosion method would have to be used. An implosion bomb was much more complex and required solutions to a whole new set of problems. In addition, it would require testing. The simpler U-235 gun bomb would not.

Another major change occurred after the laboratory’s establishment. It became clear that final purification of fissionable material and final metallurgy had to be done at Los Alamos. Those activities required a great increase in the scientific and technical population. In major part, this personnel came from the Army’s Special Engineering Detachment.

In spring 1945, with the war in Europe drawing to a close, but the Pacific war inching toward Japan island by island, Los Alamos was preparing two bombs: “Little Boy,” a uranium-235 gun-type bomb, and “Fat Man,” a plutonium implosion bomb. The first Fat Man was tested at Trinity (the test code name) in the desert near Alamogordo, New Mexico, southwest of Los Alamos. It fired successfully on July 16, 1945, with a yield (its explosive power in terms of TNT) higher than most at Los Alamos had expected.

Little Boy was exploded above Hiroshima, Japan, on August 6, 1945. Three days later, August 9, a second Fat Man bomb was used on Nagasaki. On August 14, Japan surrendered.

In 1945 and 1946 as life in the United States returned to normal, Manhattan District scientists dispersed to university campuses and industry. Arthur Holly Compton, coming to Washington University as chancellor, brought with him Joyce Stearns, who had directed MetLab after Compton. Stearns, the first dean of faculties, recruited Joe Kennedy to head chemistry, and Wahl, Lipkin, Weissman, Helmholz, and Potratz as faculty. Arthur Hughes, coming back to the physics chairmanship, brought John Manley, Oppenheimer’s assistant. Manley, however, returned in 1947 to Los Alamos as its associate director. It was by then a part of the Atomic Energy Commission operated by the University of California at Berkeley.

The war’s end also returned to Washington University the use of its cyclotron, taken over by MetLab. In 1942, much of the vital speck of plutonium—500 micrograms—used to study its fissionable qualities was produced here for Chicago and later Los Alamos. During that time, physicist A. S. Langsdorf, whose father was dean of engineering and who, himself, had been the first physicist in charge of the University’s cyclotron, joined MetLab in Chicago. He had been a member of Ernest Lawrence’s Radiation Laboratory at Berkeley in the late 1930s.

After the war, the University’s cyclotron was turned over by the School of Medicine and Mallinckrodt Institute of Radiology to the physics department. Between that time and 1950, thirty-two doctoral students used it to complete their theses. In both physics and chemistry, several of the graduate students were young men who had been at Los Alamos or MetLab and had followed their mentors back to campus.

Perhaps the least-known alumnus of the Manhattan Engineer District to take up residence at Washington University from Los Alamos was Winfield Sylvester, whom Sam Weissman describes as “irascible, explosive, and a world-class glassblower.”

“Sylvester,” recalls Weissman, “was always the same. When you would bring him anything, he’d rant and rave and say it couldn’t be done, then have it for you in an hour.”

Sylvester and his wife, Anabelle, who became Compton’s secretary, came to Washington University, Sylvester said later, “because I knew the men who came with me would bring me challenging work.”
“Let me ask you to do what historians can’t,” said Robert Williams to Alice and Lindsay Helmholz, Jane and Sam Weissman, Mary and Art Wahl, Dave Lipkin, and Adrienne Kennedy Lowry (Joe Kennedy died of cancer in 1957). The group—which in large part represented the Washington University alumni of Los Alamos—had gathered in the living room of Alumni House in early January to talk of that experience. Williams, professor of history and dean of University College, is a student of the Manhattan Project. “Put yourself back to early 1943. How did you come to hear about this project? What went through your mind when you set out for Box 1663, Santa Fe?”

Wahl: I first heard about it from Joe Kennedy, who was recruiting people for work in chemistry at Los Alamos because Robert Oppenheimer had asked him to head a division in chemistry and metallurgy.

Williams: But how did anybody persuade you to leave for the duration of the war, for a place that you didn’t really know, to work on a top-secret project?

Wahl: It was a matter of faith in people, I think.

Lipkin: Also, we knew that Oppenheimer was involved.

Wahl: Well, we knew what the object of the research was, too. Some of us had been involved in the earlier stages—with making plutonium and trying to measure its cross-sections for nuclear fission. This was an interesting further step. And we had enormous respect for Oppenheimer as a scientist.

Williams: Was he accessible when you worked?

Weissman: He cruised around the laboratories.

Lipkin: Sometimes he got himself in trouble. Sam, Morris Perlman, and I were working on a method of determining various impurities in uranium. We worked away and worked away trying to develop techniques that were described in the literature by a man named Prescott. It was murderous trying to determine parts-per-million impurities in such modest amounts of samples. Finally we suggested we get Prescott as a consultant to tell us what we were overlooking. So he came and he was a disaster. He didn’t know too much about what he had published. In addition, one night the Perlmans were kind enough to invite him to dinner. Not long after he got there, he began to indulge in some violently anti-Semitic remarks. Morris had to terminate the evening.

Weissman: That had nothing to do with his glassblowing, which stank.

Lipkin: But it didn’t help after these frustrating lab experiences. Later Oppenheimer came around and said, “Instead of just having Prescott as a consultant, we ought to bring him as your group leader.” And so I offered that to him. I caught Oppenheimer in the hallway and told him that no way could this happen. I wasn’t that discreet. He looked at me in shock and finally said, “Well, Dave, I’m just going to have to tell him he can’t come.” And that’s what he did. It was a difficult situation, but he didn’t hesitate to back off.

Williams: But in general he was a shrewd judge of character.

Weissman: He kept us and kicked the other guy out, didn’t he?

(Williams had arrived in Santa Fe in early March 1943. Art Wahl—who met Mary, a Santa Fe girl working at Los Alamos, there and married her—arrived in early April. Adrienne and Joe Kennedy, Dave Lipkin, and Sam Weissman followed in a few days. Jane Loevinger Weissman remained in Berkeley to complete her Ph.D. She would arrive about a year later. Lindsay and Alice Helmholz came in September. Lipkin, the lone organic chemist, had come to work on the possibility of a fusion weapon.)

Lipkin: Teller calculated that a fusion bomb would be much easier to make than a fission bomb. To put hydrogen into anything you use an organic chemist and that’s the way I ended up there. The only thing was that right after we got there, it was found that Teller had miscalculated and the fusion bomb was not feasible at that time. But just to illustrate how things were, at Berkeley Joe said, “Dave, we’re going to need some organic chemicals.” I said, “What kind?” He said, “Oh, just take a catalogue and order some of everything.”

Wahl: We did the same thing from Los Alamos, not chemicals, but glassware and ring clamps and stuff and we stuck an order for a case of Scotch in the middle. Weeks later, D. P. Mitchell was waving this card around asking, “What’s this thing doing in here!”

Williams: I know Groves would have liked to keep you compartmentalized, but was there pretty free discourse among the scientists?
Wahl: Back in the early days there was because the groups were so small. When I got there there were two other people in chemistry, so we then made six. We used to go to a theorist to solve simple first-order differential equations, just because he was willing to do it and knew how.

Weissman: Richard Feynman, for instance, was so fast. He would take problems that one of us would stew over for weeks and do them.

Williams: Can you remember now, did you go to Los Alamos because it was part of the war effort or because it was on the edge of science?

Helmholz: It might be a mixture.

Weissman: Well, Art's science was at the heart of the matter. I think the rest of us were just sort of Ph.D. plumbers. I had a feeling toward winning the war, maybe, but also of the great excitement of participating in these titanic things.

Helmholz: It turned out to be great.

Wahl: A lot of bright people came to that project. The intellectual stimulation. But it was really the war effort.

Williams: Can you separate in your own mind this achievement as a triumph in science versus a triumph in engineering?

Seaborg's group at MetLab.

Lipkin: And DuPont's engineering. But there were surprises along the way. The question of how to initiate implosion was very worrisome. They wanted to build these little urchins with polonium in them as initiators, but the polonium was always popping off. So they needed a way of holding the stuff down and then connecting the two hemispheres. And that was a job that Sam, Morris, and I got — working out the method of holding down the polonium and fusing the two hemispheres together after they were hot (radioactively).

Jane Weissman: When they were under pressure like that, Sam, Dave, and Morris had two periods of four hours a day when they could do anything they wanted. They'd work eight, be off four, work eight, and so on.

Lipkin: Another problem that occurred very late was corrosion of the coating on the plutonium core. When they sent the plutonium unit down to Trinity to start assembly, they found they were getting plutonium contamination because the metallurgists' coating wasn't holding up. So a few weeks before Trinity, we were asked to devise a method of protecting the plutonium core.

Weissman: That was once we were on that schedule.

Lipkin: I still remember that we'd only done a couple of experiments on something that might work, but Oppenheimer was desperate. He didn't want to postpone the delivery of the first "Fat Man" to be used as a weapon. He asked Joe to come to a meeting that night to discuss strategy. Joe asked me to go instead. It started at 7:30 in the evening and at about three in the morning Oppenheimer finally turned to me and said, "Well, can you do it or can't you?" And I said, "How do I know, we've only done two experiments." And he said, "I don't want that answer. I want to know, yes or no." So I gulped and said, "Well, I think we can." But he made the tough decision of accepting my very tremulous yes.

Helmholz: What did that mean you had to do?

Lipkin: Guarantee that we could protect the plutonium core from corrosion so they could handle it to assemble the bomb.

Weissman: Before Nagasaki, we got a sort of a coded message from Phil Morrison from Tinian. He said something about the “skin he loved to touch,” and we knew it had survived. It's terrible stuff.

Williams: What about general health standards? What were people's attitudes toward working with plutonium and uranium in those days?

Lipkin: Scared silly.

Wahl: We were very careful. We had regular nose wipes to see if we had inhaled plutonium and regular urinanalyses and blood samples. The medical people were very much aware of the problems.

Adrienne Lowry: Many of the doctors and the nurses too came from St. Louis from our medical school. We've all had the same internist for years.

Williams: Tell us a little of what life was like on the Hill?

Art Wahl

Wahl: It was both.

Lipkin: Hanford was built on the basis of experiments with a few hundred micrograms of plutonium.

Jane Weissman: That Art Wahl made.

Weissman: The scaling up was incredible.

Wahl: That is really a triumph of

Adrienne Kennedy Lowry

Adrienne Lowry: Well, from the beginning all of the wives worked. When you came in to Santa Fe, you went to Dorothy McKibben's office (she was a Santa Fe woman who handled the office down there). Every wife was assigned a job. Rose Bethe was put in charge of housing. Her first job was getting locks for doors because we were all living in
a communal dormitory that was left over from the boys school.

Alice Helmholz: I didn't work at first because I was one of the few women who came with children. Almost everybody else had theirs there.

Jane Weissman: I was a computer. People did the computing, but mostly for other people. I had a blue badge, so theoretically I didn't really know what was going on. The white badges—the scientists—were not barred from anywhere.

Adrienne Lowry: Until the M.P.'s got there, I was the mail person. I had a chauffeur—the head of the commissary's son—and a bodyguard who spoke only Spanish. We'd go down the old road twice a day, I had a briefcase padlocked to my belt. Into it went all the registered stuff for Box 1663. The rest went into a bag. It took so long that I never got back in time for lunch in the lodge. Everybody ate in the lodge for a while, until they built the mess hall and then eventually apartments.

(Apartment complexes, built in stages, each became known by the name of the builder. Streets did not have names, but orientation was in terms of the tall watertower. Oppenheimer insisted that the buildings take advantage of natural contours and the magnificent views. To the west were the Jemez Mountains. To the south beyond the Rio Grande valley were the Sangre de Cristo Mountains. The few original homes left from the boys school became known as Bathtub Row. Apartments had showers and "black beauties"—wood or coal burning stoves meant for cooking. After many complaints, wives were provided electric hot plates, but a time-limit for use was imposed. "The trouble was," commented Adrienne Lowry, "at 7,000 feet you couldn't boil potatoes in the time allotted." Everything was army issue.)

Williams: Could you leave to go shopping in Santa Fe?

Weissman: We knew the liquor store in Santa Fe pretty well.

Adrienne Lowry: But we only had enough gas (C-coupons) to go back and forth once a month and that was coasting downhill. There was a commissary.

Mary Wahl: We always had trouble with fresh vegetables and milk.

Lipkin: There was a good meat supply. Bacon and magnificent steak for 28 cents a pound. It might have been grade C, but it tasted pretty good barbecued at that little lake out back.

Jane Loewinger Weissman

Jane Weissman: You could have all the water you wanted for two hours a day.

Wahl: But Jane, that was only at the end. Up until 1945, there were no water problems. In the fall of '45, we ran out of water.

Adrienne Lowry: They hauled it up in gasoline tanks. It always had a little film on top.

Alice Helmholz: There was always Scotch.

Wahl: There wasn't always Scotch. We drank a lot of vodka and all sorts of things. To buy a bottle of Scotch, you had to buy a bottle of liqueur or something else.

Williams: All this business about codes and security. Was that just an accepted part of life? Is it something historians tend to emphasize more in retrospect?

Wahl: It was part of life. I left Berkeley and said to my family in Iowa, "I'm going to work on a project; I can't tell you where it is." And I never could. (When Art and Mary were married in Santa Fe, Art's family could not come. Visitors were allowed only as close as Albuquerque.)

Adrienne Lowry: It was such a tight little place anyway. We didn't communicate much with anybody. But it was wartime.

Jane Weissman: Nobody used long distance the way they do now. There weren't telephones. But we all lived together. We walked over to people's houses.

Adrienne Lowry: Dave, remember the night Joe was in Chicago and you walked me to the hospital because I was in labor.

Alice Helmholz: You knew your neighbors mighty well.

Weissman: Nobody resented security that much.

Helmholz: As a matter of fact, I don't remember being very conscious of it.

Alice Helmholz

Alice Helmholz: You knew your letters were censored. But so what?

Adrienne Lowry: But we couldn't subscribe to magazines; we couldn't register as voters.

Williams: Could you follow the war?

Wahl: Yes, we got the Albuquerque Journal and the Denver Post.

Weissman: And P.M. newspaper. Remember, Major deSilva in describing how tolerant he was said, "We even permit people there to read that liberal newspaper."

Williams: Mary, as a native, you must
have had a feeling for what the people of Santa Fe thought of this new community?

**Mary Wahl**

Mary Wahl: Well, generally, they were not very pleased. They felt the town had been overrun with people who seemed to be very superior; many of the people at Los Alamos had come from the big city. It was interesting later, however, to see how many people who absolutely abhorred the place, left and then sort of drifted back, captured by life there.

**Williams:** Were you aware of the problems Oppenheimer had with deSilva and the security question?

**Weissman:** Well, we knew Oppenheimer’s views. There was a story of some visiting general asking Oppenheimer if he had any troubles with labor agitators and Oppenheimer said, “No, I’m the only one here and I’m reformed.”

**Jane Weissman:** My recollection is that Oppy told his friends in the Young Communist League in Berkeley that they just weren’t going to go up there.

**Williams:** Was it true that Los Alamos people were allowed to move around more than people at other secret sites?

**Wahl:** Scientifically, I think that was true.

**Weissman:** That was one of my finest moments. I got sent to Los Angeles to buy a piece of apparatus. I was in blue jeans—looking like I usually do—and on the plane from Albuquerque my priority bumped a full chicken colonel. This guy got off the plane—little mustache and swagger stick—and looked around to see what it was that had bumped him. The look he gave me!

**Jane Weissman:** Nobody went around for fun.

**Williams:** What were your relations to the Army and to Groves in particular?

**Adrienne Lowry:** One famous Groves story was a complaint he made to Oppenheimer that he was really tired of asking for money from Congress to build the hospital bigger to accommodate babies when we were fighting a war. He said, “Really, I think you ought to talk to your guys. There are just so many babies we can accommodate up here. You’ve got to tell them to cut it out.” And Oppenheimer said, “I really don’t think that’s one of my functions.”

**Weissman:** That’s almost a Doonesbury line.

(One of the characteristics of Los Alamos, noted Jane Weissman, was that almost everybody was under thirty. That fact—and the provision of free medical care—created a Los Alamos pre-baby-boom, baby boom.)

**Lipkin:** Art, tell your Groves story.

**Wahl:** In the summer of 1943, there wasn’t much plutonium—only a dab made by the Berkeley and Washington University cyclotrons. We had taken some from Berkeley to study its chemical properties. We borrowed about 200 micrograms from the Metallurgical Laboratory to measure some of the cross-sections and the number of neutrons emitted for each fission process. The sample had to be mounted a certain way on a piece of platinum, which I did because I knew how to handle plutonium. Then I had to mount it a different way on a cylinder for the cyclotron people. In the process there was about a 10 percent discrepancy between my assay and Chicago’s. I don’t think there was any loss, but it was a different assay method. Anyway, after two days and nights of work, we finished the measurements and Oppenheimer was very pleased. He brought Groves down to meet the people who had done this. He introduced him to the physicists, Bob Wilson and John Williams, and brought him around to the chemist—me. He introduced him to me and Groves looked at me and said, “Huh! You’re the one that lost the plutonium,” and walked away.
Lipkin: Phil Morrison devised a method of getting information about what the Germans were doing. His was to have agents buy up wines from all regions of Europe. If the Germans were feeding water through reactors as a coolant or using water for processing, there would be enough radioactivity in the water so it would be taken up by the grapes. As I remember from his data, there was suspicion the Germans were not as far ahead as the generals said.

Wahl: I was shocked when I learned much later how little they had done.

Williams: When did you know the bomb would work?

Wahl: Not until Trinity. None of us knew. It seemed like such a complex series of necessary chemical purities, explosions, and implosions.

Weissman: I think we would all have been relieved if it had been demonstrated that it couldn’t possibly work.

Williams: Were you at Trinity?

Weissman: Everyone but me. I had a psychogenic bellyache.

Williams: Can you remember what you thought?

David Lipkin

Lipkin: Herb Potratz and I were lying side by side. When the thing went off, I said, “My God!” And he turned to me and said, “You know, we’re going to need Him.”

Helmholz: I was lying about fifty feet from William Lawrence, the New York Times journalist. He’d apparently prepared a speech for the birth of the atomic age. When he saw the thing go up, he started. It took about a minute for the blast to reach us. When it hit, he said, “My God! What was that?”

Williams: After Trinity, did you believe that it would be used?

Wahl: Immediately.

Weissman: There were those who didn’t want it used.

Lipkin: But there were lots of us who felt it should be used.

Williams: I guess the question needs to be asked. What was your reaction after Hiroshima?

Weissman: We were all able to extrapolate what this would grow into, that warfare was going to be different than it had been before.

Lipkin: It was horror.

Weissman: But there was some exhilaration at first. We’d done it and all that.

Lipkin: But we knew the war was going to be over.

Jane Weissman: In principle the secret was out. So it justified what all those people were doing there. Before, nobody could see what was being done. My recollection was that it took about three days before everybody began to feel a little sick.

Lipkin: When the first pictures of Hiroshima came back and then Nagasaki. But there was another feeling too—and of course it was a rationalization—that this was so horrible maybe we could eliminate war now.

Adrienne Lowry: I used to see film from the South Pacific, where my brother was, and be in tears until the newsreel was over. It was war and we saw the hell of it.

Weissman: When I got back my grandfather said, “That’s a terrible thing you guys did. The world isn’t ready for this.” But there were others who said, “Nice going, boys.”

Wahl: I had a friend who was sitting on a Pacific Island. He said, “You saved my life.”

Lipkin: I had an interesting experience—twice actually. I talked to large groups about Los Alamos and both times I was taken aback when men roughly my age came up and said, “You know, I never knew who to thank—we were poised to go into Japan.”

Jane Weissman

Weissman: Before the war ended—maybe six months—there were several organizations of scientists—in Chicago, Oak Ridge, Los Alamos—discussing the implications of these weapons and of atomic energy.

Lipkin: I was on the executive committee. We’d start right at 7 o’clock and meet till after midnight every night of the week. People were asked to write brochures pointing out the horrors and the dangers to civilization and to give talks for broadcast. It was the “Alfred Nobel concept” with respect to dynamite. But, of course, just like his concept, it didn’t work.
University College celebrated its fiftieth birthday on April 16 with the Tiger Rag Forever jazz band in a party that rocked the halls of the Women's Building. The event may have seemed upbeat for a staid old matron of fifty, but it was quite in keeping with the new University College.

Despite its reorganization last year to become part of the Faculty of Arts and Sciences, much of the traditional activity of University College continues. It still offers adult St. Louisans part-time opportunities to pursue undergraduate degrees and specialized certificates. And it continues to expand its career-oriented programs in systems and data processing. On the undergraduate and graduate levels, fully one-third of all UC students are studying this subject in classes supervised by the Center for the Study of Data Processing, a unit within the Faculty of Arts and Sciences.

But a substantial part of the new University College will chart a new course. The flagship of this thrust is University College's newest graduate program—the master of liberal arts degree. Geared to the student whom Dean Robert Williams calls "the lifetime learner," the MLA offers an intense, integrated course of study organized around core colloquia, but ranging across the disciplines of the Graduate School of Arts and Sciences, its cosponsor. Initiated two-and-a-half years ago, the MLA has more than eighty matriculants. Three students have completed the degree.

"The MLA attracts intensely motivated people," says Williams, "but we have begun to put together challenging programs in managerial economics, chemistry, communications, and health sciences as well as the humanities. We believe there is a great need for such opportunities, and that no one is better suited to meet this need than Washington University's Faculty of Arts and Sciences. I expect these students to be older (generally ranging into their forties, fifties, sixties, and beyond), to have undergraduate degrees, and to want personal enrichment as well as career advancement."

Last winter, in conjunction with the MLA program, UC offered a highly successful, admission-free, four-Saturday seminar on "The Idea of Individualism," and a series of well attended short, non-credit courses. Next fall, it will expand the non-credit program by giving students an opportunity to audit about fifteen regular courses in the College of Arts and Sciences.

"The new University College is "mostly adults, mostly part time, mostly evening," says Williams, "but not absolutely any one of these. It's very exciting. We will continue to bring new skills and new ideas to the St. Louis community."

Such must have been the sentiments of the University's founders when in 1854, as one of the initial educational ventures of the institution which was to become Washington University, "Professor Sprague" gave a series of free lectures at Mercantile Library Hall on "natural philosophy." President William Greenleaf Eliot admitted that he could not predict response to this offering, that it would likely draw "between twenty-five and 250." Enrollment for the season was 270, with an average attendance of 130 students ranging in age from eighteen to forty-six. In this series and other first steps, Eliot and co-founder Wayman Crow aimed their educational sights at the part-time student, and only from those beginnings did Washington University grow to a small body of full-time, college-age students.

As the University expanded, each fledgling school offered evening classes. In 1909, Saturday courses for teachers were added, and in 1915 a division of university extension was established. By June 1923, its 2,400 enrollment exceeded that of the full-time student body.

So it was that in February 1931, Washington University created the University College (it took its name from the extension ventures of Cambridge and Oxford Universities). The new college would direct the destiny of the established extension division and its long-time director, Frederick Shipley, was named dean. The school was empowered to confer baccalaureate degrees in journalism and education. Shipley was succeeded the following year by Dean Frank Debatin.

In 1944, shortly after William Reals became dean, UC began a post-war era of dramatic expansion. Returning veterans so swelled its classes that at the 1948 commencement, UC ranked third among all University divisions in the number of degrees conferred. Earnest Brandenburg, who took the deanship in 1955, brought UC to glory among its peers. Enrollment topped 10,000: a Ford Foundation Fund for Adult Education grant to support a "Civic Education Center," made in 1957, was renewed for three years; in 1960, UC was ranked among the top ten colleges of its kind in the nation.

In the two decades that followed, Deans Lynn Ely, John Ervin, and Richard Batt shepherded UC through a much more difficult period.

Expansion of credit-granting programs slowed, halted, and then reversed. As UC's traditional purview was taken over by other institutions (largely state and local colleges whose part-time programs were central to their educational mission), its leaders kept a watchful eye on numbers, but restructured to emphasize quality rather than quantity. Their success is evident in today's programs, but a student of the period reinforced that, differentiating among the area's part-time programs by saying, "I'm convinced other schools do a good job of instruction, but only at Washington University do I find the peer competition that I need."

With that, many happy returns, UC D. W. (with historical research aid from Teresa Schwarztrauber, UC 61, a lifetime learner)
Charles Allen Thomas, former chairman of the Washington University board of trustees, died Monday, March 29, at his estate in Georgia. He was eighty-two.

The following Wednesday, the *St. Louis Globe-Democrat* editorialized, "Most men would be content if they could match Dr. Thomas's talent in any one field. His multiple gifts of genius stamped him as one of America's truly great individuals." That tribute was echoed by many, but those who knew Dr. Thomas best cherish most the insight and the appreciation he brought to each task he accepted in life. If a thing was to be done, Charlie Thomas gave it his utmost commitment.

He brought that dedication to his early work as a chemist, and within a few years, the fledgling research company he began with Dr. Carroll H. Hochwalt had become the nucleus of a research division for Monsanto Company. Immersed in the larger arena of business, Charlie Thomas's administrative ability became apparent. He brought that talent to the service of his country as an administrator of the atomic bomb project (the story of which appears earlier in this issue) and later to the task of formulating a plan for international control of atomic energy. That farsighted plan, like other of its "one world" counterparts, failed to win approval in a parochial international amphitheater.

Late in the 1940s, Dr. Thomas returned to Monsanto's leadership. He was president and chief executive officer from 1951 to 1960 and chairman of the board until 1965. But as he relinquished the reins of Monsanto, he took up the cause of Washington University, becoming chairman of its board in 1966.

William H. Eliot, who was chancellor when that occurred, noted recently in memoriam, "Not every chairman of a university's board knows exactly what his role should be. Charles Allen Thomas did. It was my good fortune to have him be chairman for the last five years of my term as chancellor. No university president could have asked for a better chairman than he."

William D. Phillips, Charles Allen Thomas Professor of Chemistry and department chairman, spoke of a different aspect of Dr. Thomas's gift. "Much has been written about the remarkable achievements of Charles Allen Thomas as a scientist, a major participant in the Manhattan Project, an industrial chief executive, a civic and educational leader, and a benefactor to Washington University. In the four years I have been at the University, I have also been privileged to know him as a friend. I can truthfully say that in my lifetime, I have encountered only a few other individuals whom I judged to be as free of cant, hypocrisy, and the other petty characteristics that seem to afflict the human race. His tastes and interests were wide ranging; he was a true scholar in the sense that only a minority of academics can claim. With his death, the world has lost a great man, and I have lost a great friend."

The University's current chairman, George Capps, pointed out Charlie Thomas's unique contribution to University leadership. "Better than anyone else," Capps said, "he was able to bring the academic, the scientific, and the business side of University affairs together, because he himself was an entree into all three. His incisive leadership helped us all to realize that universities can't be run like businesses. He was always able to get good people to work for him, and he not only recognized their talents, but he often expressed his appreciation for them."

Probably Chancellor William H. Danforth best summarized Dr. Thomas's influence on Washington University and the University's appreciation for his gifts. In eulogy, Danforth said, "Charlie Thomas lived a long, full, and productive life. It was a pleasure to him and a joy to all who knew him. He was a leader of science and of business who appreciated academia and understood the role of great universities in American society."

"To Washington University he gave superb leadership as chairman of the board of trustees for more than eleven years in a period of rapid change which also spanned two successful fund campaigns. As long as Washington University exists, the Charles Allen Thomas Chair of Chemistry will be a remembrance of his inspiring friendship."