

FALL 1974

Washington University Magazine

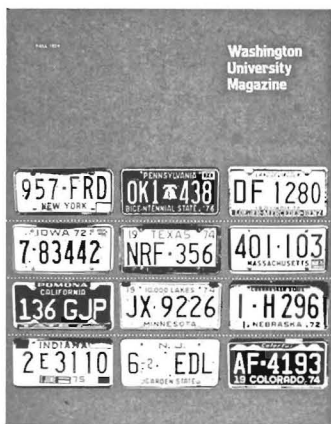




Academic menu at registration desk offered incoming students a smorgasbord of courses. This year's freshman enrollment was nearly one thousand. More than half, incidentally, ranked in the top 10 per cent of their high school graduating class.

Washington University Magazine

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COVER: Montage of license plates photographed in residence hall parking lot on registration day. Forty-three of the fifty states are represented in the freshman class.

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The Library and the University

By DOROTHY BROCKHOFF

The twelve Washington University Libraries, with the John M. Olin Library as their apex, are experiencing an information revolution triggered by the knowledge explosion. To meet the challenge, they are automating their operations and services with the new technology and, in the process, are undergoing a dramatic change as they are transformed from traditional book vaults into what the futurists call learning-resource centers.

MENTION THE words "foreign agent" to a James Bond aficionado or "Mission Impossible" addict and he will immediately conjure up an image of Humphrey Bogart slinking about in a trench coat hot on the trail of espionage agents. These cloak-and-dagger operators, however, are but one brand of foreign agent. There are many other types of foreign agents abroad, among them ten bibliophiles who represent clients such as Washington University's libraries.

One of the best known of this group is the distinguished firm of Otto Harrassowitz of Wiesbaden, Germany. Like the other nine, the Harrassowitz firm is charged with the responsibility for buying specific kinds of books for Washington University on blanket order approval. Harrassowitz, for example, is empowered to acquire materials to serve teaching and research needs from the undergraduate to the postdoctoral level in German language and literature, as well as in other disciplines.

This assignment is more narrowly defined by a carefully worded collection policy statement drafted by an Olin Library bibliographer in consultation with Washington University's faculty members. Within these specifications, however, Harrassowitz is free to purchase all current publications in German, English, and French published in Germany, Austria, and Switzerland, and to ship them off to Olin Library. The other Olin Library blanket order book dealers abroad and in this country operate under the same general rules, but in different geographic and subject areas.

Such an arrangement requires mutual confidence and absolute trust, as the late Otto Harrassowitz himself once observed. Washington University can, of course, return books which it believes do not serve its purpose, but the staff strives to keep rejects to a bare mini-

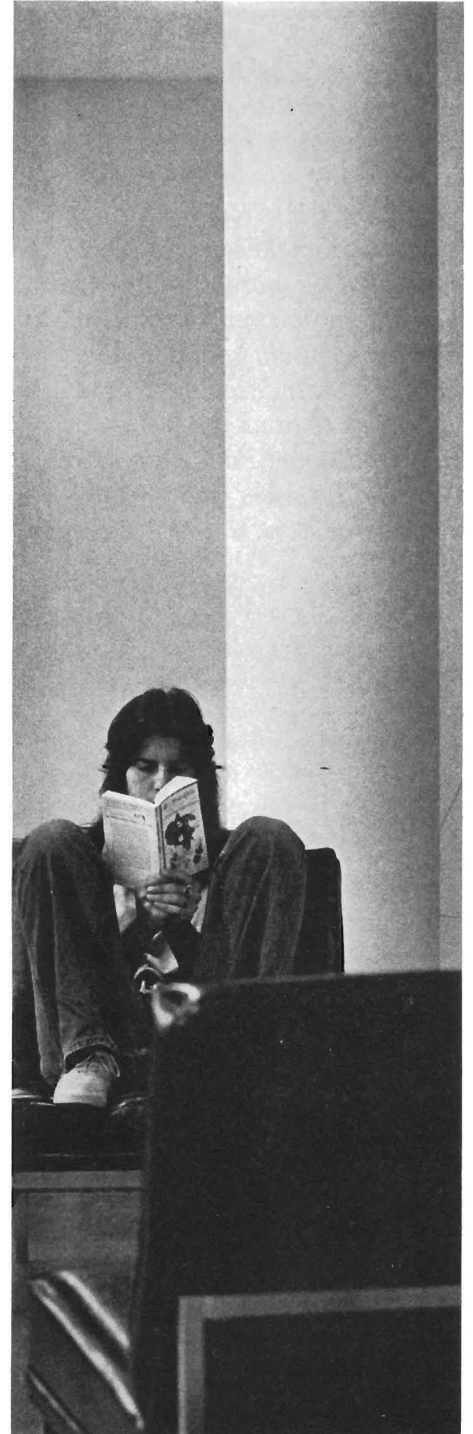
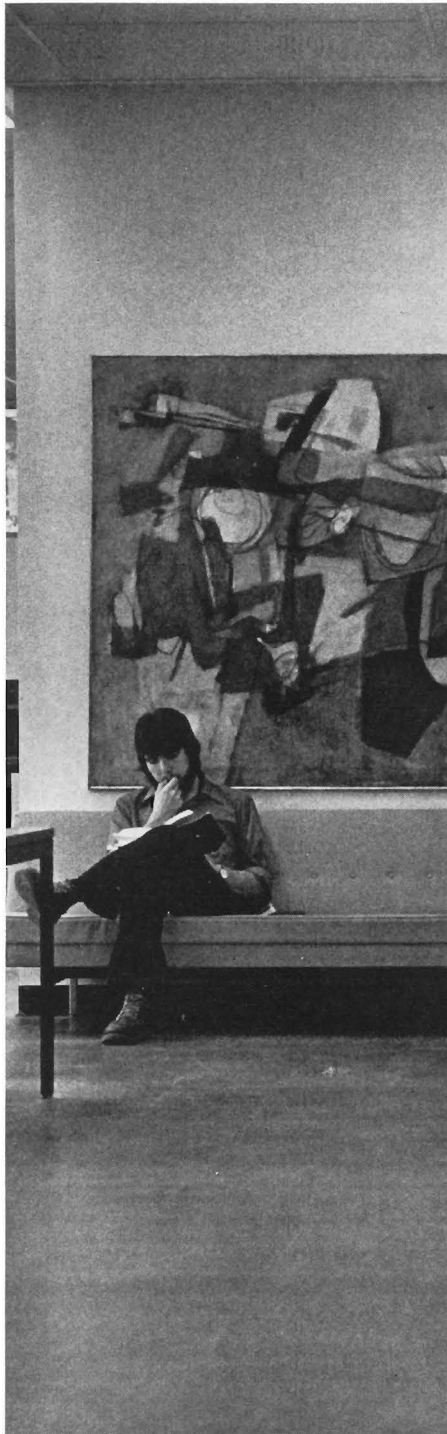
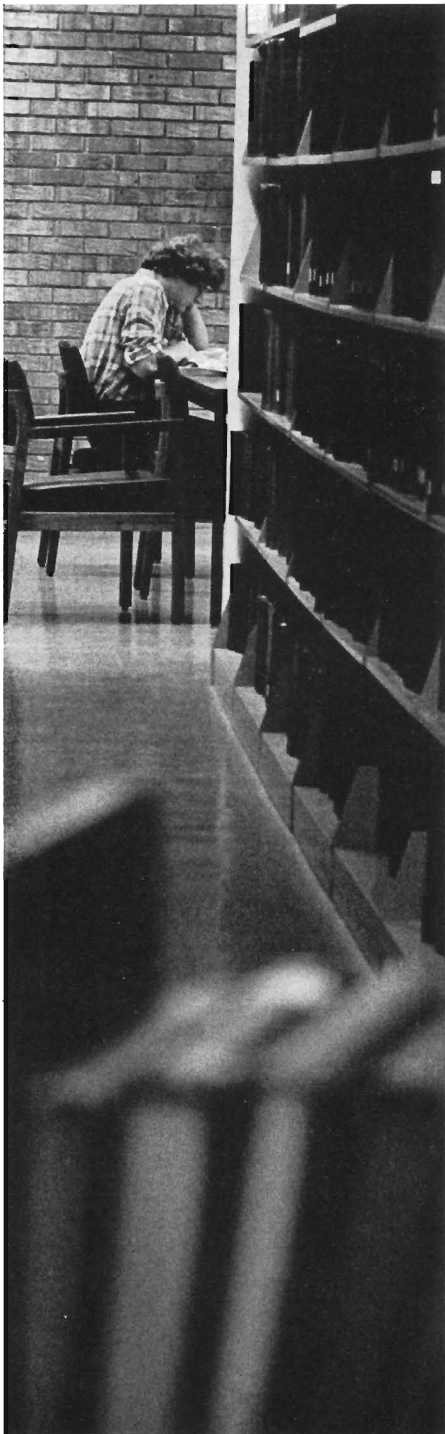
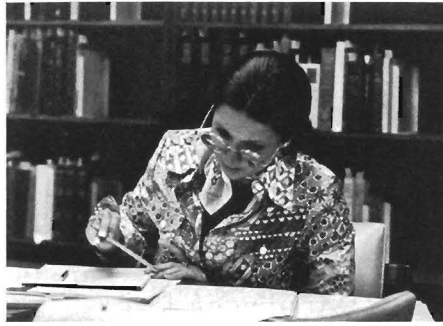
mum by carefully delineating the library's objectives.

The whole idea sounds quaintly old-fashioned in this age of the credibility gap, and it is. Thomas Jefferson, whose collection of books launched the Library of Congress, used the same method of the standing order to obtain books "relating to America as could not be found in Paris" from book marts in Amsterdam, Frankfurt, Madrid, and London. One should not conclude, however, that libraries haven't changed much since the days of powdered wigs and buckled shoes because they still use a technique employed by Jefferson. Quite the contrary is true.

Today's large research-oriented university libraries are as different from their predecessors of two hundred years ago as the stagecoach from the jet. Libraries, in fact, are participants in what a recent Carnegie Commission report called the fifth, or information revolution. The worldwide outpouring of printed words is going up 8 to 10 per cent a year, with about 400,000 books, 200,000 periodicals, and 200,000 technical reports published annually. Coupled with this awesome proliferation of knowledge is new and startling computer-operated hardware for retrieving this information, often with split-second efficiency.

THE WASHINGTON UNIVERSITY libraries are a case in point. At last count, the libraries on the Hilltop campus, together with those at the medical and dental schools, contained almost one and a half million volumes. These range in value from George Catlin's *North American Indian Portfolio*, worth an estimated \$10,000, to Vladimir Nabokov's recent novel *Glory*, which as a paperback, sells for less than two dollars. Collectively, it cost the University \$2,825,850 in the 1972-73 fiscal year to operate these li-

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baries. This expenditure placed Washington University forty-ninth among eighty-one libraries surveyed. In terms of holdings for the same fiscal year, the University ranked forty-eighth.

Perhaps the basic reason why Washington University places about midway on the scale is because this institution was a very late library bloomer, indeed. The first so-called library was located in one room of the first University building on Seventeenth Street, between Washington Avenue and St. Charles. In 1864, founding father William Greenleaf Eliot reported that the library's collection contained seven thousand volumes. By 1905, it numbered only 60,000 volumes.

IN THAT YEAR, the books were moved to the Skinker-Big Bend campus and shelved in Ridgley Library, which was used during the World's Fair to exhibit Queen Victoria's crown jewels. Librarian Winthrop Holt Chenery considered this building far from ideal, and in 1913 politely chided the architects of Ridgley "for a very imperfect realization of the complex workings of a large library."

Apparently, Robert S. Brookings, president of the Washington University Corporation, did not share Chenery's misgivings, for he is reported to have looked admiringly at the building and exclaimed, "Now we have a beautiful library." To which an outspoken professor of Latin, Frederick W. Shipley, is reported to have responded caustically, "Yes, but where are the books?" It was a logical question, for at the time there were only 5000 books in the University's general collection. The rest were department holdings.

Forty years later he need not have asked. By the end of June, 1953, almost 300,000 catalogued volumes had been squeezed into Ridgley stack space originally intended to accommodate only 40,000 books. It was this intolerable con-

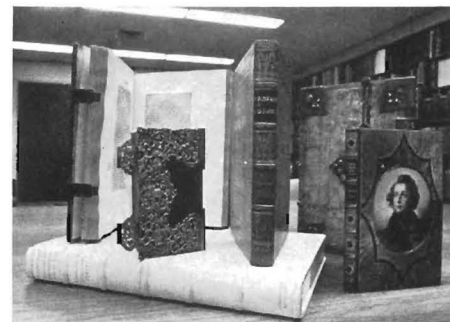
dition which the following year led the Committee on University Goals and Objectives, headed by Professor Marion E. Bunch to "unhesitatingly give first priority to a new library building." Director of Libraries Andrew J. Eaton, in reflecting on this recommendation recently, added: "Major credit for the Olin Library, however, should be given to Ethan Shepley (Chancellor, 1954-61), who recognized the need, gave the project his full endorsement, and persuaded John M. Olin to give the initial gift which enabled us to go ahead."

The John M. Olin Library was named in honor of the man who, at the time of the building's dedication on May 2, 1963, was chairman of the executive committee of Olin Mathieson Chemical Corporation and a member of the University's board of directors. He is now honorary chairman of the board of the Olin Corporation and a lifetime trustee of the University.

The firm of Murphy and Mackey won the architectural competition for the design of the \$3,500,000 building. That the judges chose wisely and well has been confirmed by experts in the field. Ralph E. Ellsworth in his book on *Planning the College and University Library Building*, published in 1968, hailed Olin "as the very best of the relatively new academic library buildings in this country."

According to Ralph Morrow, Dean of the Graduate School of Arts and Sciences and chairman of the twelve-member Library Council, "During the last fifteen years, the growth and development of our library has been phenomenal." This upward trajectory was especially true in the booming mid-sixties, but the downward cycle of the economy in the sluggish seventies has caused serious financial problems for libraries all over the country.

Three years ago the New York Public



Library's science and technology section which, like other research activities at the famed institution, is almost totally dependent on private funds, nearly closed its massive doors for lack of money. At Washington University the situation has never become quite that desperate, but there have been real grounds for concern these past few years. Problems arise not because the overall budget has been cut, but because the modest increases provided have not been sufficient to keep pace with zooming costs.

In his 1972-73 annual report, University Librarian William H. Kurth showed conclusively that there had been a sharp decline in library purchasing power in recent years. In 1968-69, \$600,000 was available for the purchase of books and periodicals by Olin Library and the other nine libraries on the Hilltop campus which it administers. Said Mr. Kurth: "Applying a modest 7 per cent annual increase in monograph and subscription prices, and using this \$600,000 as a base, we find that we would have needed \$786,476 in 1972-73 to maintain our acquisitions program at the same level. This sum was \$182,476 more than was available."

WHAT FOLLOWED was curtailment of some services. A moratorium was placed on the purchase of serials for about nine months during 1973 and 1974. This directive caused some anguish, especially in scientific circles where such periodicals are absolute necessities. Olin Library currently subscribes to about 10,000 journals, many of them scientific, and new periodicals keep appearing.

In addition, the library cancelled its purchases of French, Italian, Spanish, and retrospective American twentieth century literature blanket orders. Retrospective, freely translated from library to lay language, means non-current books. Washington University could ill afford such economies because there

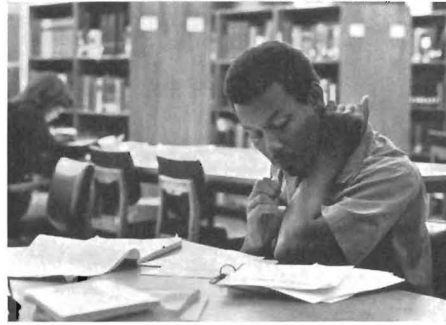


were already sizable gaps in its book collections attributable to the minuscule acquisitions during the library's formative years. Book and periodical fund expenditures have been upped to \$765,000 for the current fiscal year to enable Hill-top libraries to cope with inflationary book and periodical prices. This increase has recently enabled Olin Library administrators to reinstitute French and Italian blanket orders.

Nevertheless, even with a fatter purse, the library still faces serious budgetary problems because today's dollar buys so much less than it did just a few years ago. Chairman Morrow made this point clear. He explained: "We are on a kind of plateau, and what we are struggling to do over the short run is to stay abreast of current publications. If we don't do this, we shall fall behind just as we did in earlier years, only to discover in 1980 that we lack certain essential holdings because we weren't able to buy them when they appeared in the seventies."

Meeting the University's library needs is one of the major priorities of the current effort to match the \$60 million Danforth Foundation challenge grant made to Washington University in 1973. Over the five-year challenge period, it is hoped sufficient funds can be raised in private gifts and grants to provide additional endowment for the libraries to insure that their quality is not eroded by inflationary pressures.

Meanwhile, the University has joined a ten-member consortium of private colleges and universities formed in an effort to find and develop new and innovative ways to solve their problems. As part of this arrangement, at the suggestion of Mr. Kurth, the chief librarians from these institutions have begun to meet regularly to exchange ideas and pool their individual efforts. Olin Library is also using graduate students in business administration to make cost analyses and



conduct management surveys.

Last year, two such students, Doug McDaniel and Paul Hovanec, polled a cross-section of the 5000 who go in and out of Olin Library on a busy day, and came up with the information that prompted library policy-makers to increase the opening hours from ninety-eight to 106 per week. This procedure was exactly the antithesis of what other university libraries were doing, but it was in keeping with Mr. Kurth's belief that a library exists to be of maximum service to its users.

IN PLANNING the budget for future years, Mr. Kurth must also consider allocations of space and increasing automation. Olin Library, as it adds about 50,000 volumes a year to its collections, could conceivably run out of space within the next four or five years. By that time it will be filled to about 75 or 80 per cent of capacity, the margin which a library must maintain in order to manage its collections efficiently. Already rarely used books are being stored in bunkers at the University's Tyson Research Center.

Finally, there is the problem of how best to use the new technology designed for libraries. "Medical libraries are years ahead of us," Mr. Kurth explained. The Washington University School of Medicine is already hooked up to six computerized bibliographic searching systems. One of these is MEDLINE, developed by the National Library of Medicine. Plugged into this data bank, the patron can use the computer to search the biomedical literature indexed in *Index Medicus*, and if the citations are fewer than thirty, the terminal at the medical school will provide the searcher with the reference while he waits.

In early October the use of specialized data banks with such strange names as INFORM, COMPENDEX, and GEO-

REF was demonstrated on the Hilltop campus in both Olin Library and the nearby Rebstock Hall biology library. The purpose of these presentations was to introduce computer information services to both faculty and students on the Hill with the expectation that soon these electronic searching systems will be installed in Olin Library.

This fall, an improved computer system went into operation in Olin Library to handle all circulation of books. This new, electronic brain speeds up service and is more efficient than the old hardware it replaced. A multipurpose mechanism, it can send overdue notices automatically, and is able to detect and identify sly users who try to beat the system by sliding their past due books into the return slot without paying a fine.

AS THIS ARTICLE went to press, Olin Library was preparing to link up with the shared cataloguing computer network operated by the Ohio College Library Center in Columbus. This system will enable Olin librarians to search the central catalogue there and to receive computer-printed catalogue cards by mail. It is expected that this OCLC system will effect important reductions in the rate of increase of per-unit library costs. This development, plus a telecommunications installation already in use, make it possible for Olin Library users to tap resources in other library centers.

Libraries, moreover, are beginning to provide users with more and more multimedia devices such as video tapes. The Carnegie Commission estimates that by the year 2000 "a significant proportion of instruction in higher education on campus may be carried on through informational technology—perhaps in a range of 10 to 20 per cent."

"All of this opens up tremendous areas for libraries starting tomorrow or even today," Mr. Kurth explained. "We must

change and adapt as we see signs and signals on the horizon." He added, however, that he does not believe "any of these devices will supersede the book. In a library such as ours," he continued, "we will see a blending process with a necessarily strong commitment to a conventional library and library setup."

Olin Library, despite the invasion of what Lawrence Clark Powell, the great UCLA librarian, insists on calling the documentalists or information retrievers, will continue to need a good many librarians who do not proclaim librarianship a science, but rather believe, as he does, "that it is an artful craft, a crafty art, to be practiced with a trinity of talents: hand, head, and heart."



Andrew J. Eaton, Director of Washington University Libraries, spent his recent sabbatical leave as a consultant to libraries and librarians in the Middle East, Asia, and Africa. A highlight of his experience was a visit to Burma, where he inspected libraries and conducted seminars for Burmese librarians. While Burma has normally been closed to foreign advisors for several years, the Burmese Ministry of Culture extended the invitation to Mr. Eaton through the U.S. Department of State. In this article, he describes his impressions of modern Burma and of the state of library science in developing countries.



MISSION TO BURMA

By ANDREW J. EATON

Director of Libraries

THE INVITATION to go to Burma was unexpected. It came last March while I was in Iran on a Fulbright lectureship teaching in the Department of Library Science of Tehran University. On sabbatical leave from my position as Director of Libraries of Washington University, I was nearing the end of my two-year stay. I had done considerable traveling in Asia and Africa during the long Iranian academic holidays, and I had assumed that I would return directly to the United States without seeing the Far East.

The cablegram from the State Department was signed "Kissinger." (This impressed me, even though I learned later that all Department cables bear the Secretary's name if sent while he is in Washington.) Addressed to the American Embassy in Tehran, it requested the cultural affairs officer to find out if I would be available for a two-week visit to Burma between mid-May and mid-June. The purpose of the trip would be to inspect libraries and conduct a seminar for Burmese librarians on the problems of libraries in developing countries. I would go as a guest of the Burmese Ministry of Culture, but my travel expenses and honorarium would be paid by the U.S. Department of State.

Although I knew very little about Burma, I felt from the beginning that this was an invitation I could not turn down. I had found Western Asia fascinating, and this would be an opportunity to see Southeast Asia for the first time. I knew that Burma had been closed to foreign advisors for many years, and I was flattered to be the first American librarian to receive an official invitation. Through my teaching in Iran and my visits to Pakistan, Libya, Kuwait, Jordan, Lebanon, India, and Nepal over the past two years, I had learned something about libraries in developing countries, and I felt that I had something to say on this subject to an audience of Burmese librarians. American Embassy officials in Tehran, moreover, urged me to accept, pointing out that the State Department was working to improve U.S.-Burmese relations and that this visit was a part of their overall program. I learned later that the U.S. Embassy in Rangoon had proposed the visit a year before on the theory that a librarian was sufficiently non-political to allay Burmese government suspicions. After months of bureaucratic delay, approval had been given. I was suggested by Washington officials because I was already halfway to Southeast Asia.

I wanted to read about Burma in preparation for my trip, but I found that Iranian libraries contained few pertinent books and periodicals. From the sources I could lay hands on, I learned that the country is located between India and China, bordering also on Bangladesh, Laos, and Thailand. It

is about the size of Texas and has a population of 28 million. Most of the people are Buddhists, and religion has exerted a strong influence on Burmese culture. Burma had been an independent kingdom up to the nineteenth century, but had then been conquered by the British and incorporated into the Empire as an appendage to India. Invaded by Japan in World War II, the country had been a major battleground and had suffered extensive damage.

In 1948, Burma won its independence and opted for a parliamentary system with a strong socialist bias. This system operated until 1962, when the army seized control and created a military dictatorship. At that time, Burma decided to move vigorously toward nationalization of economic resources and to limit its contacts with the outside world in order to avoid entanglement in big-power politics and to pursue its own unique "Burmese way to socialism." Partly as a result of this isolationist policy, the economy had stagnated, and Burma is now a poor country with little industrialization and a low standard of living. Recently, the military government returned authority to civilians and a new constitution was adopted, but General Ne Win and his associates remain firmly in control of all aspects of political, economic, and cultural affairs. I learned, finally, that Burma is monsoon country and that I would be there during the rainy season.

WITH THIS meager background, I took off on Pan American flight no. 2 at 1:55 a.m. on May 27. Even though I was halfway to Burma already, I knew that the trip would be a long one. I was to arrive in Bangkok that afternoon, stay overnight, apply for my Burmese visa the next morning, and take the late afternoon plane to Rangoon. The long flight from Tehran to Bangkok was uneventful, and I was pleasantly surprised to be met at the airport by the young American librarian in charge of the U.S. Information Service regional library office. He would accompany me to the Burmese Embassy the next morning to get my visa, and we both hoped that the staff had been informed of my coming and would issue the proper visa without delay. The maximum time foreigners can stay in Burma is seven days, and I needed a two-week visa. To my great relief, word had come from the Ministry of Culture in Rangoon to give me a special visa good for two weeks. It was ready in twenty minutes, which convinced me that my mission did indeed have the full approval of the Burmese government.

The flight from Bangkok to Rangoon took about an hour. At the Mingaladon Airport, a delegation was waiting to welcome me. It included Francis Coward, Cultural Affairs Offi-

Mission To Burma

cer in the American Embassy, who had originally conceived the idea of a librarian's visit, and several Burmese from the Ministry of Culture and the National Library. The Burmese, all of whom spoke some English, seemed shy but friendly. After shepherding me through immigration and customs formalities, they took me to the old Strand Hotel, an imposing relic of British days where, in a huge room with ceiling fans and a noisy window air conditioner, I began my stay as a guest of the Burmese government.

U Aye Maung, Minister of Culture, received me in his office the next morning. A former Air Force officer, he welcomed me in halting English, offered me coffee and cake, and gave me the schedule which I would follow during the next eight days. It had obviously been prepared with care, and he was proud of it. I would begin my inspection tour in Rangoon, visiting various libraries at Rangoon University, the National Library, a large public library, the National Museum, and Burma's most famous pagoda. I would then fly to Upper Burma to see the archeological ruins of Pagan and the libraries and pagodas of Mandalay, with side trips to the towns of Maymyo and Sagaing. Returning to Rangoon, I would visit more libraries and then conduct the seminar. In addition to all these professional activities, the schedule included several social events, highlighted by a dinner in my honor to be given by the Minister of Culture.

THE CORDIALITY displayed by my welcoming committee and by the Minister was manifest everywhere I went throughout my visit. Burmese librarians had had very limited contact with foreigners for twelve years, and they were delighted to see an American colleague. Some of them had gone to the United States for training in librarianship, and they enjoyed recalling American teachers who had befriended and helped them. Four librarians took turns serving as guides, accompanying me not only to libraries but also to pagodas, market places, and handicraft shops. The English-language newspapers in Rangoon carried daily reports of my comings and goings, always on the front page. The issue of the *Working People's Daily* of June 6, ran a lengthy summary of my speech at the Librarian's Seminar in a prominent spot on page one, right below a flash announcement of President Ne Win's arrival in New Zealand. I know of no other country where a visiting librarian would receive such attention, and I enjoyed it thoroughly.

Rangoon, a city of almost two million population, is the capital of Burma and the financial and trading center of the country. Founded by the British, it retains a faint aura of colonial times, although it now appears a little shabby and rundown; paint is peeling from the old gray buildings and



Andrew J. Eaton, Director of Libraries

streets and sidewalks are in poor repair. Automobile traffic is light, and there is a refreshing absence of air pollution. I walked between monsoon downpours from the Strand Hotel across the park to the Rangoon River, where teak logs were piled, boat taxis with single oarsmen were taking on passengers, and a sidewalk noodle shop was doing a brisk business. Colorful billboards on the movie theaters advertised films from the United States, Russia, and India, all presumably screened by government censors. A lively bazaar area, covering several blocks, was filled with small shops selling black market textiles, radios, cosmetics, pharmaceuticals, and cooking utensils, smuggled, with government approval, across the Thai border.

The most striking architectural feature of Rangoon is the Schwedagon Pagoda. Built over 2500 years ago, it is said to be the largest Buddhist temple in the world. The main structure is 326 feet high. It has a bell-shaped tower covered with gold leaf, and the topmost section is inlaid with diamonds, rubies, emeralds, and other gems. The pagoda is brightly illuminated at night, and I had my first glimpse of the gold spire silhouetted against the black sky as I rode in from the airport. Later, with Daw Tan Tan Aye and Daw Ma Mya Khaing, my two female guides, I spent an hour walking barefoot around the platform, mingling with saffron-robed monks, worshippers, and other visitors, and gazing at the many smaller pagodas and shrines which surround the main spire.

My impression of the libraries in Rangoon was that they are struggling with severe shortages of space, staff, books, and money. The Universities' Central Library, for example, serves a number of institutions with a combined enrollment of 15,000 students, yet it has only 150 seats; its building was occupied by the Japanese army during World War II and was virtually destroyed with all its contents when the invaders left. The National Library occupies the upper floors of an old government office building. The largest public library has only 32,000 books, and its reading room is badly overcrowded.

Conditions are better in certain specialized libraries, where influential professors and research workers have demanded and obtained government support for improved facilities. The Institute of Technology Library, the Burma Medical Research Institute Library, and the Library of the Central Research Organization are examples. In all the libraries I visited, the collections contained both Burmese and Western-language books and periodicals. The larger libraries had interesting collections of old palm-leaf manuscripts and *parabaiks* (folded sheets made of tough bamboo paper) which had miraculously survived the destructive effects of insects, humidity, and foreign invasions.

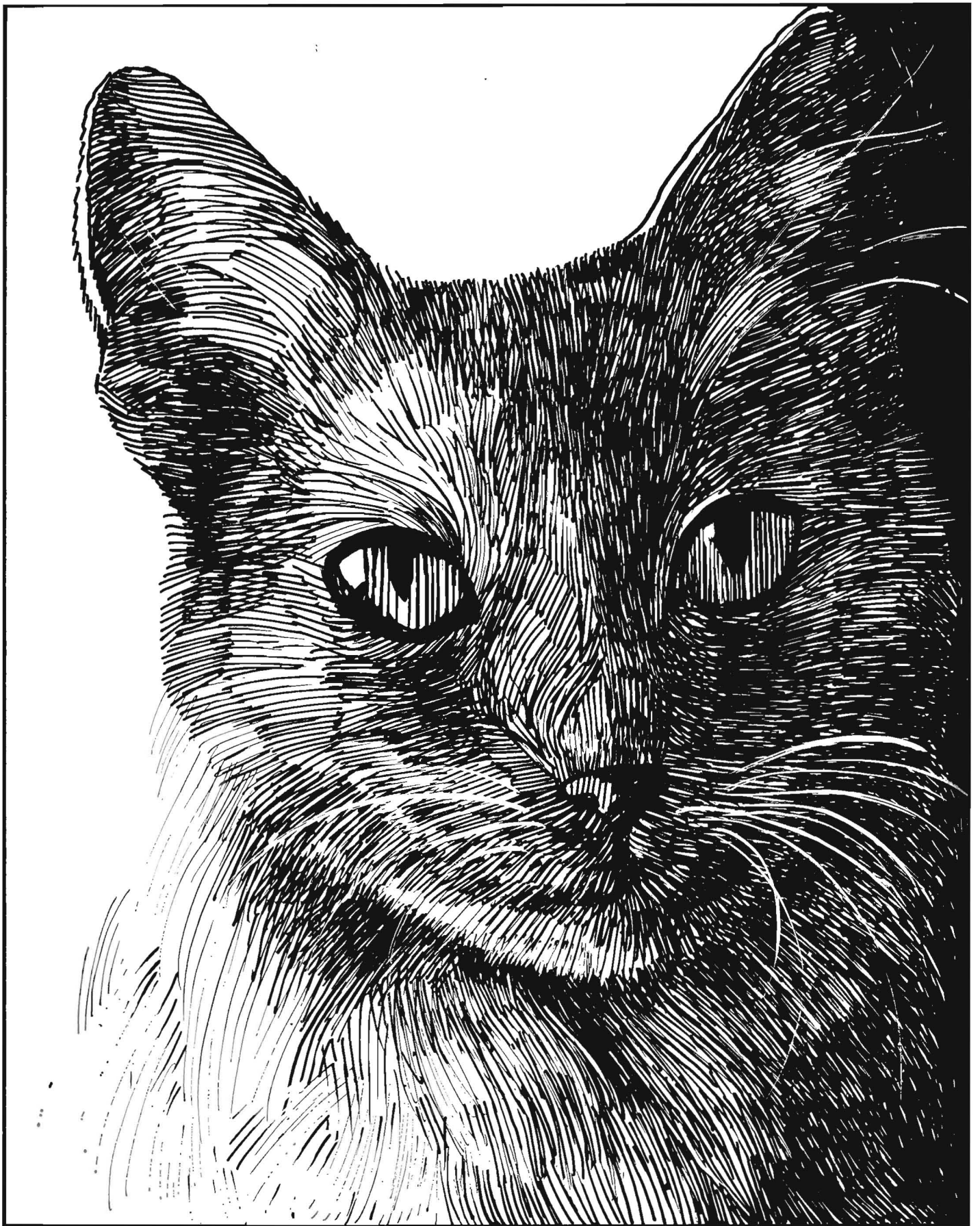
UNLIKE RANGOON, which bears the stamp of foreign influence, Upper Burma is a storehouse of native culture, and I welcomed the opportunity to visit it with U Min Naing and U Ohn Maung as my traveling companions. Our first stop was Pagan on the Irrawaddy River, site of the first Burmese capital. Here, during a 250-year period beginning around 1050 A.D., Burmese kings and commoners, intent on gaining merit in their future lives, devoted their wealth and artistic talents to building pagodas. Of the 5000 pagodas constructed, more than 2000 survive, some in excellent condition. In a field among the pagodas, I saw the oldest surviving library in Burma, built for King Anawrahta in the middle of the eleventh century to house the 300 elephant-loads of Buddhist manuscripts which he commandeered from the Mon Kingdom in Lower Burma. Now unused, it stands as a reminder of Burma's long tradition of respect for the written word. Fortunately, Pagan's fascinating ruins are not being neglected by the government. Staff members of the Department of Archaeology are busy studying, preserving, and reconstructing the buildings. They are also developing a museum to house their valuable collection of antiquities. At the end of our tour, they invited me to come back for the dedication of the new museum building in 1976.

Our next stop was Mandalay, one hundred miles northeast of Pagan and also located on the Irrawaddy. The royal cap-

ital of Burma until 1886, Mandalay is the recognized center of Burmese culture and religious learning and the second largest city in the country. Here, it was my good fortune to have as my guide Daw Tin Hla, director of the National Library and Museum and member of a prominent Mandalay family. Her grandfather had been an assistant to the most successful pagoda builder in the city and her father had been the highly respected principal of the largest school. She had received a degree from the University of Mandalay and had then gone to the United States for graduate study at the Columbia University School of Library Service. Upon receiving her master's degree, she worked for eighteen months in the California State Library. Under her guidance, I climbed Mandalay Hill and walked through the city's main pagodas, monasteries, and temples.

BACK IN RANGOON, the culmination of my visit was a meeting in Jubilee Hall, an auditorium dating from British times, to which about 125 library workers from all parts of Burma had been invited. This was apparently the first national gathering of librarians that had been held in several years. I presented a paper on my assigned topic, "Problems of Libraries in Developing Countries." The American Embassy had printed copies of my speech in both English and Burmese, so the audience could follow the text. After my talk, about a dozen librarians came to the platform to pose carefully prepared questions. Their hope was that I would say something that would lead to greater understanding of their needs on the part of university authorities and government officials. Time will tell whether any such happy result will ensue. The Minister's interest in my visit and his willingness to sponsor the seminar seemed to offer hope for the future.

That evening, the Minister gave a dinner in my honor at the Inya Lake Hotel, a contemporary building located in an attractive suburban park-like area and built, I learned, with Russian assistance. Among the guests were the American ambassador to Burma and several of his staff and various Burmese government officials and librarians. Since the Minister is fond of Scotch whiskey, the cocktail hour before dinner was pleasantly prolonged. In deference to their American guests, the Burmese served a western menu. Following the meal, brief speeches were made, gifts were presented, and all guests autographed my printed menu as a memento of the occasion. As the party finally broke up, Ambassador Osborn said he was very happy with the unexpectedly warm Burmese response to my visit. I left for Bangkok and Tehran the next morning knowing I had had an unforgettable experience whether or not I had contributed in any way to the improvement of Burmese-American relations.



Cat-People & People-Cats

By MICHAEL W. FOX
Associate Professor of Psychology

Professor Fox, who holds a veterinary degree and a Ph.D. from London University, is a world renowned authority on animal behavior. Among his works on the subject are the authoritative The Behavior of Wolves, Dogs and Related Canids and the extremely popular Understanding Your Dog. His latest work Understanding Your Cat covers every aspect of feline behavior and throws considerable light on cat-owners. Reproduced here is a chapter from the new Fox book on "Cat-People and People-Cats: Their Needs and Relationships."

MAN HAS VIRTUALLY made the dog in his own image. The contemporary dog is extremely dependent, and, therefore, being willing to please its master, it is highly trainable. The dog also has many roles and fulfills many needs. Not only the traits that make them useful as companions or guards, but the almost pathological dependency of some dogs make them ideal child substitutes for young and old alike. (In a sense, such dogs are helping control the human population.) Such dependency, though, is the source of the many neuroses and emotional disorders so common in dogs today.

Dogs can also satisfy other human needs; a rare breed gives the owner status and identity; a graceful dog like a Saluki or a powerful mastiff can be a projection of the owner, accentuating her grace, his "gay" femininity, or the owner's aggressiveness. Conversely, the same dogs can fulfill introjected rather than projected needs. Thus a Saluki makes an ungainly person feel more graceful, and a mastiff gives a sense of power and strength to the insecure. In contrast to the dog, to what extent does the cat serve as "therapist" or emotional crutch for modern man? Can it also be an outlet for socially repressed, frustrated, or unfulfilled needs and desires? Do the projections, introjections, and expectations that some impose on their cats contribute to the development of some of the disorders described in the preceding chapter? Also, to what extent do the restrictions imposed on us in adapting to crowded urban living affect the cat? Is "future shock" acting upon the cat as it is on man and dog (see *Understanding Your Dog*)? Is the cat still a free, wild spirit in our midst, or must the cat, like its master, forego many of its desires in order to belong and be accepted into home and society?

These are not simply rhetorical questions to tease the intellect and imagination. For me they represent some key issues that concern the future of humanity, the quality and humaneness of life today, and the welfare of the pets, cat and dog, that we take with us. Life today, with its rapid rate of change—"progress and development," the credo of *Homo technos*—is a prime cause of insecurity. In a constantly changing world, how can one keep a sense of identity and equilibrium? Must we all

become future-oriented and not live in the "now," or do we tenaciously hold onto the past, like a security blanket? A constant element for most of us is our home, not our children, for they soon grow up and leave. But the home may be temporary, since we expect our work to move us somewhere else or we hope to "move up" into a more expensive district. Few people today have neighborhoods that give them a sense of togetherness and place-identity; many live in anonymous bedroom suburbs or in housing developments where families are constantly moving in and out. A sense of impermanence confounds the modern scene—transience, anonymity, and loneliness. Material objects—a car (or two), as well as a house and other possessions—help some find a false sense of security and identity. For many, the one constant element in their lives must surely be their pet. It is always accepting; it is rarely if ever "moody" and can never change its values or attitudes, as so many friends, lovers, and colleagues do. It is a source of companionship, something to come home to for the young bachelor man or woman or the retired widower or lonely widow. It is often the one constant refuge and confidant for the child who may be ignored by indifferent parents or misunderstood because of his own inability to communicate. The pet makes no demands on him, whereas his parents do. He can't discipline his parents, but he can boss the dog or cuddle with the cat and feel reassured and loved. Life without pets today would be unimaginable, since they do play so many different roles for which it would be difficult to find any effective substitutes.

IN ORDER to "belong" to a particular socioeconomic class, to be accepted, one has to conform. This is one of the most powerful and often coercive if not corruptive pressures that man has had to deal with since he first became civilized. It creates a schism (the schizophrenia) between self and others, between one's own needs and beliefs and those of society. Often it is advantageous to forego some egocentric, self-centered desires for the benefits of belonging and being accepted. It is a kind of trade-off, a compromise of one's freedom for the advantages that can be gained through conforming. For some, too much may be

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compromised and they become prisoners of conformity, giving up their own desires and beliefs for consensus. They may even be controlled by political and corporate voices that tell them what to believe, what to do, what to buy, own, possess, and even eat. Humanistic psychologists refer to such a human condition as being "other-directed" (*i.e.*, governed by others, so that one acts, feels, and believes as one thinks others expect he should). In contrast, an "inner-directed" person is one who is relatively nonconformist. Although he cares for others, he acts, feels, and believes from and for himself, although, on the "surface," he may appear to conform. The more dependent a person is, the more other-directed he is; he is also less responsible for his own actions. There are cultural differences, too—Americans tend to be more other-directed than Europeans. Ideally, there should be a balance between the two, the person being neither too conformist nor too self-centered.



I SEE THE dog as other-directed, always willing to please its master at all costs, while the cat is the individualist, the non-conformist that shows affection when it feels like it. Few cats will use affection to "manipulate" others, while dogs and people certainly do. Is this one reason why some people prefer dogs and detest cats, while others much prefer cats? Do they identify something in their own nature that finds kinship or affinity with the dog or cat archetype? Others may base their preference not on an affinity with their own state of inner- or other-directedness, but rather to compensate for their own weaknesses or disequilibrium between self and others. A strong-willed, extremely inner-directed person may like to have a dog to boss around and to subordinate; he wouldn't have a chance with a cat or another strongly inner-directed person! His wife (or her husband) might well be a "dog," bending to his every whim and fancy. What of an excessively other-directed person? He may get much satisfaction from a cat companion, identifying closely his needs with the freedom and independence that his pet radiates. He may also enjoy a dog for two reasons. First, the dog may "suck," like the overdependent pet that he can overindulge; the owner literally places his whole life at home at the service of his demanding

pet. A frustrated person who is forced by others to conform and who is by circumstance obliged to be directed by others may find solace in a cat or a dog. Again the archetype may radiate the feelings of freedom and independence that he is lacking. Or the dog may be a whipping boy for him to dominate and vent his spleen on; many dogs (and spouses) are used to release such pent-up, repressed feelings.

Having a cat as a pet can give one an anchor on reality in a world imploding with future shock. It can act as a link with nature, with the natural world from which we are separated by our highly technologized urban culture. The monstrous impersonal sameness of the urban scene replaces the diverse supra-personal oneness of the natural world of wilderness, desert, and forest. Why else do people in the great cities of the world still keep pets in their cramped apartments, where space is a priority? Space alone is not enough, even in a crowded environment. Companionship and the link with a world that is not all man-made and man-controlled are important needs that a pet can partially fulfill. For some, one cat or dog is not enough; they need four or five, and when they come home, they have a "pack" of animals to greet them and a whole social system in which they have a meaningful role. Why else should a young woman in Brooklyn have five German shepherds and an old widow in Greenwich Village have twenty cats? They are not only giving refuge and love to unwanted pets, they are providing themselves with an animal world that gives them refuge and sustenance against the arid unreal world outside.

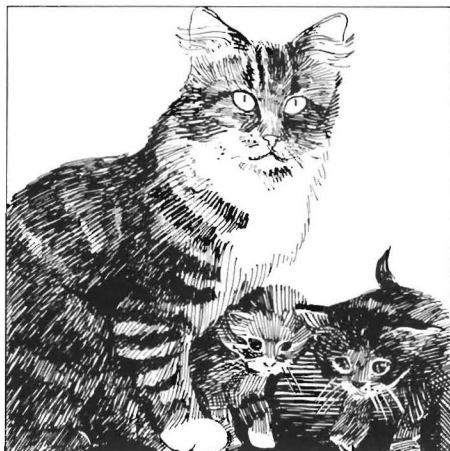
Many people go one step further (or "beyond") and take a wild animal as a pet—an even more authentic link with nature. There are "pet" raccoons, ocelots, cheetahs, lions, wolves, and monkeys all over the country, often kept in small apartments or in duplex basements. Tragically few of these animals adapt to such conditions, and state laws should be set up to ban the sale of any wild animal (even if it has been born in captivity) for "pet" purposes. There is nothing better than a cat or dog as a pet, not in terms of fulfilling one's need to have something real and wild like a wolf or a lion in the home, but rather in terms of their adaptability. Cats and dogs are more reliable and predictable (in the

home with people) than any wild animal and adapt far better to "captivity" or the confinement that is the necessary imposition of modern life. But in adapting, sometimes too well, the dog and cat may acquire bizarre habits and other compensations in order to live close to its owner, but far from nature.

MANY DOGS and cats today will refuse to eat anything but their gourmet canned pet food or the best quality table scraps. A dog would turn up his nose at venison, which his cousin the wolf relishes, and a cat might well reject a fresh, uncooked fish or rabbit that any wildcat would enjoy. Likewise, modern man, accustomed to a diet of steak, corn, and potatoes, may have an aversion to fish or antelope and not know that in the wilderness he is surrounded by nutritious foods—berries, roots, wood grubs, ants, and grasshoppers, to name but a few. Our culture determines not only what we prefer but also, more generally, influences how and what we perceive. A totally enculturated man could die of starvation surrounded by a virtual banquet of items he no longer recognizes as food. Similarly, our dogs and cats become conditioned, early in life, to expect a particular type of food: This is a kind of food imprinting, a very fixed attachment. Some pets may almost die when it is necessary to put them on a special diet because they refuse to eat anything except what they are used to.

Being civilized, for man, and being domesticated, for the cat, entail many impositions or restrictions on doing what comes naturally. Social codes impose limits on what we can or cannot do and we similarly impose limitations on our pets. If we do not conform, we are ostracized, fined, or even imprisoned. If a cat does not conform, it is put to sleep. In the process of adapting to such pressures, both man and cat can suffer from basic needs being repressed or frustrated. As emphasized earlier, man does have some choice as to how far he wants to compromise himself vis-à-vis inner-versus other-directed urges and forces. But the cat has little choice. How can we help it adapt better? A cat whose prey-catching and killing instincts are blocked because it is never allowed out, may begin to attack its owners. The ankles of those passing by the cat waiting in ambush by the sofa become the

necks of the prey he would normally attack. The same pent-up drive in the dog leads to car and bicycle chasing and even to chasing and nipping children that run by. Effective "therapy" for some cats is the provision of suitable play objects that resemble live prey—a furry toy, a clockwork or catnip-filled mouse; others will be satisfied periodically only with live mice. Man was also at one time a hunter, and the activity of hunting, killing, and bringing home a trophy is bound to the male ego. Such instincts are not lost in a contemporary man who likes to "make a killing" over a business deal, has to "hunt" for a job, or for clients (would-be prey?), and the trophy he brings home is a paycheck. Take these away, and his sense of worth, of pride, and of purpose are diminished, his ego is crushed. Success boosts the ego; failure destroys the man who has let his ego become his identity and who has fallen into the trap of valuing the things that he does above what he is. His role has become his identity; take away his role (his job) and he is nothing.



But men today still hunt, few for food, most for "sport," for ego. It is man's ego that destroys the wilderness, conserves animals not for their own sake but for his own uses, and transforms the ecosphere into a global egosphere. Cynics say it is better for some to vent their frustrations on killing animals rather than each other, and this may well be true in a number of socio-economically deprived rural areas where prejudice and lack of opportunity and alternatives for changing the life-style are the catalysts to violence.

Man is not innately aggressive as a

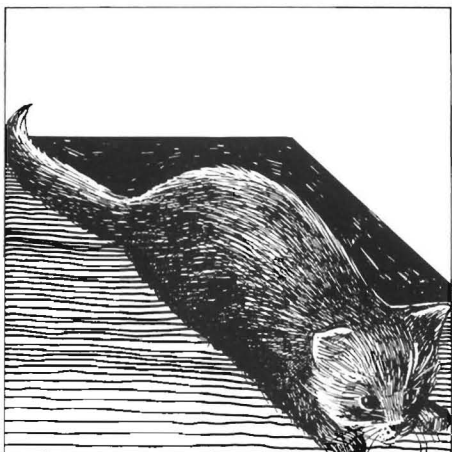
number of ethologists, such as Konrad Lorenz, might believe. *How* he fights may well be innate, but *whom* he fights is determined by experience. Aggression is a survival action, released when other basic drives and needs are blocked or frustrated—such as sex, identity and status, belonging, and freedom from repression (benevolent or otherwise), or from being misjudged and discriminated against by others.

Similarly, the cat will aggress if some of its basic needs are blocked. A male cat, confined from roaming, may suddenly and viciously attack its owner. A jealous cat, feeling rejected by its owners because of a new kitten in the house, may try to kill it.

If cats are to live in relative harmony with us, we can help them adapt to some of the impositions we must impose on them by castrating them. This will reduce aggression and eliminate the sex drive.

ANOTHER aspect of behavior common to man and cat is territoriality. Man has had laws to protect his territory since the beginning of recorded history. No matter how poor, a man's home is his castle and this may be respected by all comers. With an increase in population, be it in an animal or human community, there is increasing competition for living space. This creates considerable stress and is further aggravated by the paranoid behavior of those who have territory (or "real estate") who feel that it is imperative to defend it against intruders. A man will put up a high fence and post "No Trespassing" signs. A cat will prowl and spray to mark his territory at a greater frequency if a rival is nearby; it may become so aroused as to spray inside the house and even attack visitors at the same time its master may bug the house with burglar alarms and purchase a firearm.

Paradoxically, a man will deodorize himself before going out in order to give himself a low profile in public. By reducing his personal identity in this way, as well as by wearing the anonymous gray flannel suit uniform, he likewise reduces the impact of interaction stress in a crowded urban environment. Similarly, a male cat must not leave his identity in the house, although it is natural for him to do so. Visitors might be offended by such an all-pervading odor;



and before the guests arrive, the hostess sprays her armpits and also the place the cat has marked in the house—all is hidden by springtime lemon for the guests' arrival!

As a child, I was always taught to be civil to adults and put on a friendly air even when I wanted to be left to myself. Later I learned to play the role and assume a mask of overt friendliness. Likewise, we expect our pets to be friendly to all visitors, who may take it as a personal affront if the pet ignores them.

IT IS STILL acceptable for a cat to ignore visitors but not so for the dog, who may be even forcibly dragged over to "meet" the guests. Cats often like to be left alone, and many owners presume too much on the animal's need for privacy, cornering it, picking it up, and petting it even though it clearly wants to get away. The more we accept our pets (and other people) on their own terms, instead of imposing our expectations and values on them, the more comfortable the world will be.

Consider the neighbor who wants to shoot my friend's dog, who tore off a piece of meat from a deer he had shot and left out on his back porch. Why does another person put out strychnine-loaded bait to kill neighbors' cats who kill wild birds sometimes in her garden? To expect a dog not to scavenge a free meal once in a while or a cat not to follow its natural instincts is ludicrous, but it is a common attitude held by many. We cannot hope for our animals to live up to the expectations of others, but through selective breeding our domestic animals do in part satisfy such demands. Many dogs now readily accept strangers,

while it is natural for a wild canid to avoid them. Many cats show no interest in hunting; this may be partly genetic but is probably owing to lack of appropriate experiences early in life. The same holds true for the dog.

In general, though, we cannot expect animals to behave *contra naturam*, to not follow their natural instincts. They cannot sublimate their desires, like man, although they can, like man, redirect to substitute objects. So a cat may be content to prey-kill a fluffy toy, or a tomcat will masturbate on a cushion. Many animals and people are less fortunate in that such outlets are unsatisfactory, and then the problems of frustration and repression discussed earlier arise.

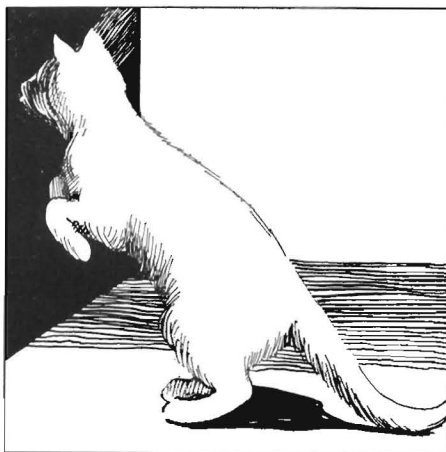
For man, the basic issue of a person being responsible for his or her own actions is vital for the continuance of harmonious and productive relationships with others. We impose such values on our animals too, yet how can we expect an animal to show such responsibility? Admittedly, a dog will look guilty when you come home and you know at once he has done something wrong—eaten the roast or torn up a carpet. Such a capacity in an animal is remarkable. It would seem to be almost absent in the cat; few will show guilt the same way as a dog. Some of my cats will show a fleeting "anxiety-submission" when they have just done something wrong, but they will soon forget and will even go back and repeat the misdemeanor. A dog, in contrast, will react for hours and show true guilt and remorse. But can we condition a cat to feel guilty about spraying in the home, killing birds, or bring home live prey (as a tribute to the owner or displaced maternal behavior of providing prey for

nonexistent kittens)? Would it not be inhumane to instill a sense of guilt for what is natural for the animal to do? We do the same to children, and this accounts for many minor neuroses and unresolved conflicts in adulthood.

FORTUNATELY, cats are almost out of the reach of such programming, and the question of responsibility then rests with the owner. In most places today it is ecologically a crime to allow a cat out to kill birds and other wildlife. Owners of dogs and cats also have a social responsibility to leash or otherwise restrain their pets to prevent them from roaming freely. Free-roaming pets can contribute to the spread of a disease and contribute significantly to automobile accidents. A farmer would never think of allowing his cattle to roam onto the highway or down the village street. Owners of pets must assume the same responsibility for their animals, too.

Another serious breach of responsibility comes from people allowing their pets to roam and breed. There are too many unwanted pets anyway, so why aggravate the problem further by allowing your own pet to breed? Some justify this by saying it would be educational for the children to see their cat give birth and raise a litter of kittens. Others use their pet vicariously because they are either impotent or do not intend to have children themselves. As emphasized earlier, a spayed or castrated cat does make a better pet; perhaps only licensed breeders should be allowed to have fertile animals. How else can the pet-population crisis be rectified, since people in general refuse to accept the full responsibilities entailed in having a pet today? Twenty years ago there was no problem, but today there are more people and more pets and we have to face up to these contemporary problems and not dismiss them with the belief that they will be solved by someone else. The "someone else" may well be rigid law enforcements controlling pet ownership indiscriminately, a state that smacks of fascism, but which is inevitable in our "democratic" society, since so many people seem to be irresponsible, uninvolved, and socially uncommitted.

One of the main reasons why people lose interest in their pet is that it not only requires attention and restraint but





also grows up. A kitten remains appealing and evokes much attention and affection until it matures. Its demeanor changes; it is less playful and entertaining; its body changes, the more mature conformation evoking fewer feelings of affection and tender loving care than a round-headed, big-eyed fluffy kitten. So the adult is given less attention and may be virtually ignored, if not neglected. It is allowed to roam free, and if it never returns home, it may not even be missed. Thus irresponsibility arises from people becoming disenchanted with their kitten as it becomes a cat. Cats are less fortunate than dogs in this respect since some dogs literally never mature. These are the "perpetual puppies" described in *Understanding Your Dog*, the best examples of which are some toy breeds like the poodle and Yorkie, which are genetically more neotenic (infantile) than many other breeds.

WE RAISE boys to be boys and girls to be girls. From an early age, children of our sexist culture are stereotyped and pigeonholed into sex-related roles. Girls are raised with and reinforced by a set of expectations from parents and others, as are boys. In a similar way some people will raise cats one way, with one set of expectations, and dogs another. They think that a cat is aloof and distant, that it doesn't want much attention, so they don't try to leash-train it or engage in chasing or retrieving or wrestling games as they might with a dog. If a dog is raised like a cat, it will be asocial and impossible to train. Give a kitten the same attention and training as you would a puppy and it will be a very different animal when it matures. No, it will not be a dog, nor

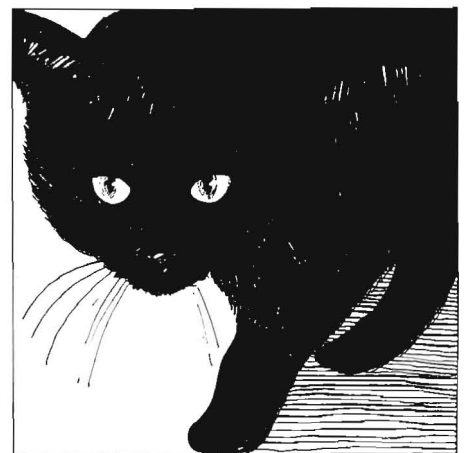
will the little girl be a boy or a lesbian with a screwed-up sex role in life.

For various reasons, I got my first cat several years ago. Igor was a Siamese, refreshing company after a day's work at the lab with dogs, and he didn't seem to mind being left alone while I was away at work. I raised him just as I would a puppy—trained him to come, fetch, and follow me on walks, and so on. We even engaged in stalking and rough-and-tumble games. In one game I would bite his paw gently and he would bite my nose gently. The harder I bit, the harder he would bite until I gave in. This was my first close relationship with a cat, much of which can be attributed to my rearing it without any particular expectations—simply trying out what felt best for both of us. Perhaps this is the best foundation for any relationship.

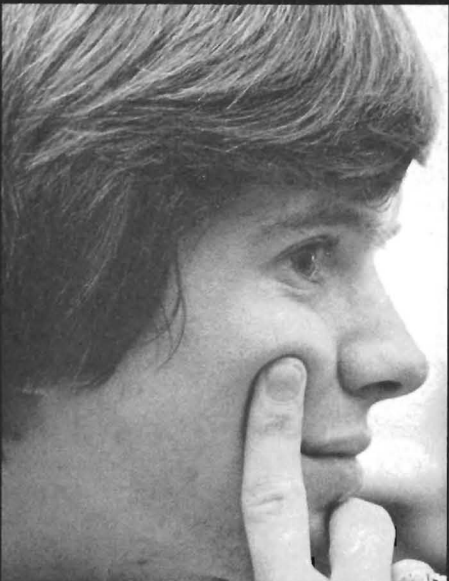
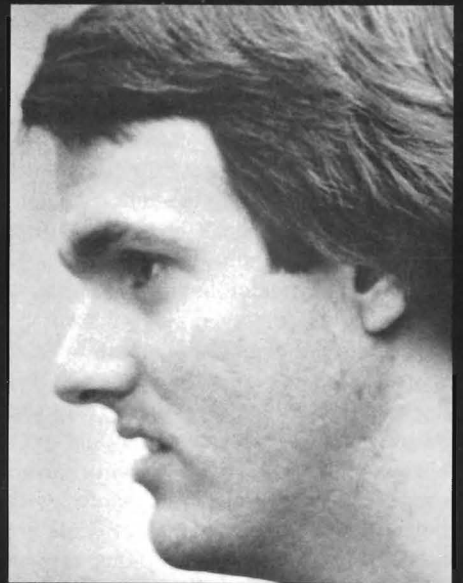
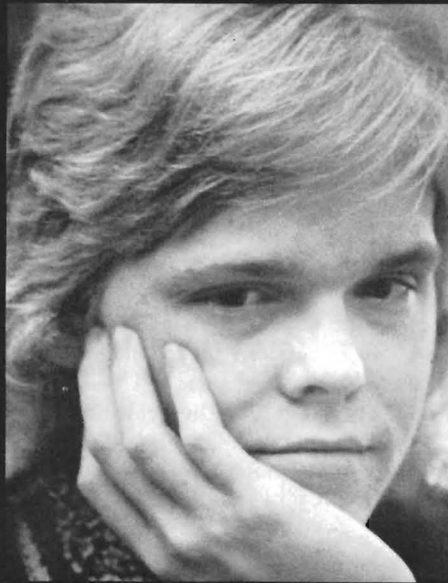
A FINAL analogy pertains to the dilemma of modern man, which the cat has not had to face since it is basically a solitary or highly individualistic being. The cat, being a relatively solitary animal, is freed from the pressures of having to belong to a social group. Unlike dog or man, it does not have to be deferential and display submission to superiors. Nor does it get caught up in the bind of striving for acceptance, for status, or for power. It has been proposed that a basic cause of mental disease in man is rooted in the social hierarchy. Failure to achieve status causes frustration and aggression; a fall-off in status causes depression, while insecurity in one's social position or role leads to anxiety and paranoia. High status, on the other hand, can lead to megalomania. Much energy is wasted by people striving for status, success, and power; the more insecure a person is, the more he strives. Only in social groups of dogs, monkeys, and men do we see social outcasts (the pariahs of a community) and status rivalry and despots. The advantages of belonging to a group are not equal for all individuals since the best of animal and human societies are rarely wholly democratic. Caught in the bind of having to adapt to such pressures, an individual is inexorably involved, swept up into having to compete in the rat race. Survival itself seems to depend on status. Children in most schools today are encouraged not to co-

operate and develop social skills but instead to learn to compete with one another from an early age and are rewarded for this. They will then be well equipped for the status struggles of adulthood.

We continue to evolve culturally and to grow personally, the two being reciprocally dependent. As we develop, our needs and values change. The uses that we make of our pets today differ from those of fifty years ago. It will be interesting to see what uses they serve and what values and expectations we have for them fifty years *from now*. We and our pets are evolving, civilization and domestication unfolding together. We and our pets have also changed significantly over the past ten thousand years, at which time man first began to domesticate animals. Domestication of the cat began several thousand years later than the dog, and, since then, changes wrought by selective breeding on the wild feline prototype have been minimal. Of all the cat breeds, the Siamese is perhaps the most "doglike"—more trainable and dependent than other breeds. Perhaps over the next few years other breeds of cat will be more like this in order to satisfy many of the human needs discussed in this chapter. The cat will then be more likely to be more susceptible to behavioral disorders. The incidence of mental health problems in the human population is reflected in the pet population. It is hoped that this chapter will help offset some of these logical future expectations and also help in the recognition and alleviation of emotional disorders in cats today and tomorrow.



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Students on Scholarships

By DOROTHEA WOLFGRAM

APPROXIMATELY 35 per cent of the undergraduate students at Washington University will receive some form of financial aid from the University during the 1974-75 academic year. Although that figure itself seems startlingly high, it is far from a reflection of the total number of Washington University students receiving aid, for graduate education is heavily subsidized.

Higher tuition and increased costs of living have made it difficult for students from families of moderate means to attend institutions like Washington University. In recent years, the number of young people seeking financial aid has steadily risen.

In the decade following 1963, undergraduate scholarship assistance administered by the University's Office of Financial Aids has increased from \$537,442 to \$2,526,270. The percentage of the undergraduate student body receiving such assistance has grown from 23 per cent to 35 per cent.

With the exception of fifteen honorary scholarships—the Langsdorf Fellowships in engineering, the Compton Fellowships in the natural sciences or mathematics, the Lien Scholarships in the social sciences, the Mylonas Scholarships in the humanities, and the Conway Scholarships in the fine arts—all University aid to undergraduates is based upon both academic ability and financial need.

The University commits 19 per cent of the tuition it receives for financial aid. Endowed scholarships and loans, federally funded loans, and campus employment make up the other major sources of aid available to undergraduates.

The sources of graduate subsidy are much more diverse. Students receive financial aid through loans and through school and departmental scholarships and fellowships. Graduate students are also granted aid by the University in return for teaching or research service. A major portion of support comes from outside the University in the form of government grants for training and research, government and private fellowships for specific kinds of education, and research grants or contracts which allow the participation and the support of graduate students.

Outside support of graduate education, however,

has greatly diminished in the past few years, particularly in some fields. Resulting is an imperative need for the University to find additional aid in this area.

“A significant source of scholarship support for graduate students in arts and sciences was the National Defense Education Act,” said University Vice Chancellor Lattie Coor. “At its peak this program at Washington University supported 228 graduate students, providing almost \$5000 a year for each participant. In the face of the demise of the NDEA program and others like it, though none was so dramatic as the NDEA, the University has to make a larger contribution to graduate support than in previous years.”

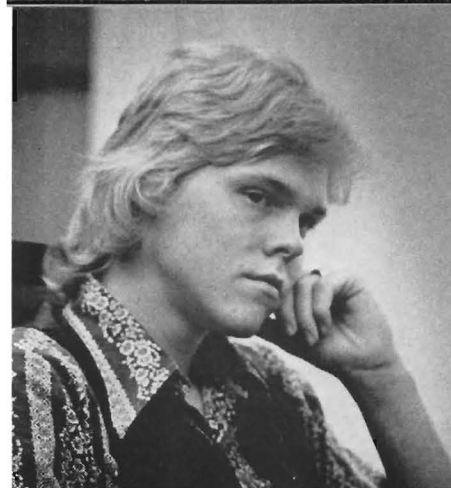
ON THE undergraduate level, almost all awards are in the form of financial aids packages—combinations of scholarship, grants, loans, and part-time campus employment. This year the average scholarship award is about \$2000 and the average loan about \$800.

“Financial aid is awarded not only to students from low-income families, but also to many students whose families could fairly be called middle class,” said Benjamin Sandler, director of the Office of Financial Aids.

“If a family has an income beyond that necessary to maintain a moderate standard of living, we anticipate that a portion of that income will be contributed to a student's educational costs. The difference between the actual costs—tuition, room and board, and incidentals—and the amount we believe a family is able to contribute, determines the student's financial need. Generally we base our estimate of family responsibility on an analysis of a Parents' Confidential Statement by the College Scholarship Service, a national service.”

Tuition costs at Washington University today represent about one-half of the cost of educating a student, yet tuition has risen from \$1350 in 1965 to \$3350 in 1975. This rise in costs, combined with Federal cutbacks in scholarship and loan funds, has resulted in a precipitous increase in the need for

Greg Couch, freshman in the School of Fine Arts.



financial help for both graduate and undergraduate students.

Within the next five years, Washington University seeks to increase its loan funds by \$2 million and its scholarship funds by \$3 million. A gift of \$1 million will establish a named loan or scholarship fund that will help many hundreds of students to obtain a sound education. A \$240,000 gift will endow four named full fellowships. A gift of \$60,000 will provide annual income for one named full scholarship.

In the face of rising costs and dwindling outside aid, a healthy University financial aids program is the only hope of continuing to attract a diverse student group to Washington University. If Washington University is to pursue its goal to offer quality education, its norm must be a heterogenous student body of varied economic background and superior academic ability.



Joyce Edwards and Benjamin Sandler of the University's Office of Financial Aids look over applications for scholarships.

THERE IS A SCENE in a popular animated film on creativity in which an interview is conducted entirely in letters and numbers. "I.F.C?" says the interviewer. "496-36-3182," answers the interviewee. "09-7-42," he adds. "SS?" asks the interviewer. "56-4-318," answers the interviewee, "11-6-60." "Ad?" "37168 18 N.W., 63108; 314-367-1944." "Fav. Acc.?" "8-10-6066-5109-818." "35?" "315." "4107358?" "43-567-8-1097-316-810-2 . . ."

In the beginning, the process of applying for financial aid at Washington University, or at any major college or university in the nation, must appear to students and parents as almost that inhuman. Forms, facts, figures, estimates, evaluations, inquiries into personal matters. Send them all in, and one day out comes a list of figures. The result produces either a sigh of relief or a cry of indignation.

It is no surprise then that at a recent meeting between financial aids officers and financial aid recipients the happy discovery is that everybody is human.

"I've just discovered that you are real and it's great," said Joyce Edwards, assistant director of the financial aids office. "All this time I thought those articulate, unhappy students whom we see daily were our only clientele. And they aren't. They're maybe one per cent of it."

"You know, when you are filling out those forms," confided freshman James Murashige, "you wonder why you give all that personal information, because you picture a computer zeroing in on a few key numbers, scanning down its table here and across the index there and coming up with you, 457-861-9100-B." He finished with great animation.

So the conversation closed. It had opened much more formally. "We've

Scholarships

asked you to come because each of you is receiving financial aid from the University. Aside from that, we selected your names at random. That fact and the fact that nothing you say will affect your aid, is important for you to know," said Ben Sandler, director of the Financial Aid Office. What was not said was that the common thread of receiving financial aid was likely to produce diversity even among six students.

NANCY RODENBERG is a business school freshman from St. Louis County. Although she considers her family middle class by living standard and by values, "You've got to define that term," she says, "We don't have much income. I have no father and my mother can't work, so our income is fixed and small."

Tom Moorman is a graduate student in social work from Xenia, Ohio. Tom is married. He and his wife are bearing the cost of his professional education. "If I consider my father's profession, I'd say we are a middle-class family, but many blue collar workers make more than we have lived on and my wife and I are pretty needy." Tom has a loan covering tuition cost; he and his wife manage living expenses.

Kennethe Green, a young black woman from Richards-Gebaur in Missouri, recalls that her conversation with her father regarding Washington University began with "Well you can't go there unless we get financial aid." For this reason Kennethe applied to state schools as well, "though I really wanted to attend Washington University because a degree from here means so much more than a degree from a state school, and I'm willing to work for the difference."

Bob Grese, a sophomore in architecture, came to Washington University from Memphis, but last summer his family moved to St. Louis. Realizing that his

aid for the year was based on his residence on campus, he went to the financial aids office to notify them of the change. "I was afraid, really afraid, that they would take the difference out of my scholarship and leave me with the same loan, but they didn't. Equal portions were taken out of both."

Greg Couch is a freshman in the School of Fine Arts from Bettendorf, Iowa. The only one of the students whose aid package does not include a loan, Greg receives a \$1000 scholarship. "When I was five, my grandfather bought some stock for me which is now worth about \$16,000. With the scholarship, I should just make it." He worries, of course, about the stock market and rising college costs. "I figure I might be able to get more scholarship aid from other sources, but my mother and I talk about the market often and I realize that I may not be able to finish here if something too drastic happens to the stock."

JAMES MURASHIGE is Oriental. He's a freshman in the College of Arts and Sciences from Hawaii. Jim says he too is from a middle-class family. Although only his financial aid makes it possible to attend Washington University, he worries about the family savings being expended to meet his remaining educational costs. "When you live in the ocean, when the whole state is six islands, you tend to live a pretty isolated life. This may be the only opportunity I have to live on the mainland. For that my parents are willing to sacrifice."

Nancy and Kennethe, as Missouri residents, were required by the University to apply for Missouri Student Grants which are provided by the state to residents with financial need who enroll as full-time undergraduates at colleges and universities within the state. Both received grants, and the University's aid

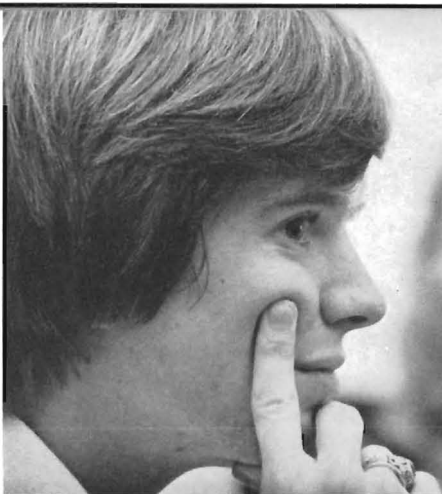


Kennethe Green, College of Arts and Sciences sophomore.

to them was reduced by that amount. Bob will be required to file as a Missouri resident next year.

"The University's financial aid to undergraduates is based upon academic promise and financial need," explained Mr. Sandler, "Our expectation is that we will continue to meet a student's need for his undergraduate years so long as normal progress is being made toward a degree. We no longer require that a student receiving aid maintain a B-average every year. That has good and bad aspects. It is a humanizing change because it recognizes that even a good student may have a bad semester or year. From the other standpoint, it is difficult for a student whom we turned down to realize that a student on aid is doing poorly or goofing off while he is doing well and paying. As long as we do not have enough money to go around, we feel we must use our funds to support students of promise with the greatest need."

Robert Grese, sophomore
in arch:ecture.



Nancy Rodenberg, School of
Business freshman.

"I didn't know that I didn't have to maintain my grades to keep my scholarship," Nancy commented. "I think that could be a motivating force, but then it could be a harmful pressure, too."

"Most of us want to do well for other reasons," Bob said. "Because even with financial aid it's more expensive, the only way I can justify my parents sending me here is to make A's. Then I'm saying, 'you're investing in a good education for me and I'm making the most of it.'"

Bob's family is large. His parents worry about treating each child fairly and his siblings have gone to less expensive church schools on church aid. "I'm here because I want to study architecture and because my parents know that I am willing to work. I always had jobs in high school and did well. I always have summer jobs and I'm willing to put everything I can into my college education."

Bob has a job shelving books for two hours a day in Olin library. The first se-

mester of his freshman year was the only time he hadn't worked. "I can use the money, in fact, the University's forms require that you estimate your summer job income as a part of your assets—that's scary because you're afraid if you estimate high and can't make it, you may be in trouble—but I also like to do something that's a total change from academics."

Kennethe too works at the library. "I do it for spending money, but it's pretty hard sometimes to get into the study groove after three hours of evening work." Nancy recently quit her off-campus job because she found it hard to coordinate with classes and study time.

"We used to believe our students couldn't work and do justice to their school work. Maybe we were wrong or maybe students have changed, but in 1974 that's just not true. Statistics prove it," Mr. Sandler said.

"The pressures on our financial aids budget are so great that next year we are going to have to draw part-time campus employment into the financial aids package. We have always tried in the past to cover the full extent of a student's need for scholarships, grants, and loans and to allow them the legitimate use of part-time employment as a little financial breathing room. We can no longer afford that."

"Does that mean," someone asked, "that you'll assign a student a specific job?"

"It might; that's one of the questions we're struggling with now." Everyone shifted uncomfortably in his chair. One thought flashed the ESP wavelengths in the room.

Joyce Edwards addressed it. "Let me tell you what has happened this year. We awarded sixty-five specific jobs as part of the need package this year.



James Murashige, freshman in
the College of Arts and
Sciences.

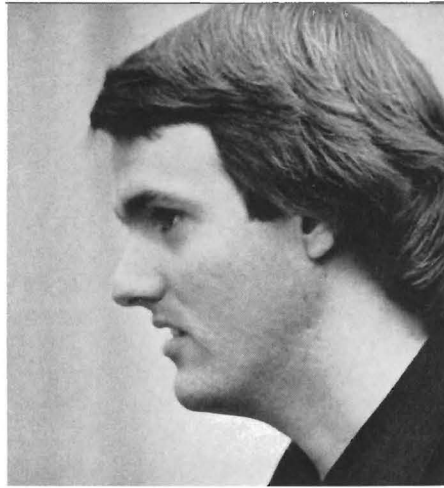
We've had quite a few students ask if they could change jobs by finding a comparable-paying job on their own. We've allowed that, provided that they understand that we expect them to make so much a semester and that if something goes wrong and they don't make it, we can't be responsible. We simply don't have extra money lying around."

"Frankly, we're way behind in this," Mr. Sandler said. "Many schools similar to ours require employment. The key is to open up the entire campus job pool. If we do, we probably can find most students jobs that fit their professional or their extracurricular interests. I'm not saying we'll make a perfect match for everyone. We're not a computer dating service, but we should do pretty well."

Greg seemed to represent majority opinion when he said, "I think if I needed the money, I'd find a way, but I'd like to enjoy the job, too."

Next year, Washington University's

Thomas Moorman, graduate student in the School of Social Work.



Scholarships

tuition will rise \$250 to \$3350. The financial aids office anticipates that it will compute the cost of a year at Washington University at \$4675 for a St. Louis student, including on-campus meals, transportation, books, etc., and \$5750 plus travel for an out-of-town student. Two factors mitigate the strain that these increases will place upon financial aids. The available funds will rise because the University's trustees have committed a portion of tuition income to financial aid. In addition, because most family incomes will also rise, the entire increase need not be reflected through University aid.

WASHINGTON UNIVERSITY requires that a Parents' Confidential Statement be submitted each year with application for renewal. Last year, for the first time, it also required that all applications for renewal be accompanied by the first page of the 1040 income tax form for the year covered by the PCS.

"We found some discrepancies between these two statements, and we adjusted those awards," Mr. Sandler said. "We also found that many students are unaware of their family's financial condition. Some students were puzzled, even angry, about the adjustments.

"Our system is far from perfect and inequalities occur. Generally we expect a family to participate to the extent of its ability in the cost of educating their child. As a result of differences in family values, what may seem a fair award to one family, may seem punitive to another in comparable financial circumstances. We measure tangible assets. We consider the family home, the number and ages of children and expenses connected with these. We look at such things as how many cars a family owns. We ask for information on savings accounts and investments as well as income. What we

cannot take into account is what a family may or may not have done in the past to build up or to spend those assets. In the year at which we are looking, we do expect some sacrifice.

"We look only at the present, with the exception of considering the age of the parents and allowing for a retirement income. That narrowing of our perspective is not always just—one family may have saved and the other may have vacationed in Majorca for the past three years—but we must limit our focus or flounder as we go from family to family. We ask for four PSC's and three 1040's from the typical undergraduates, so that we have at least that many 'slices' of the present."

"Every student who comes to our office or every family who writes or calls has a legitimate problem, one that is real to them," said Ms. Edwards. "Some feel great resentment because of the financial burden we have placed upon them as opposed to the life style of 'those rich kids.' Sometimes that resentment has just cause. One student came in after his first math exam. 'I'm a good student,' he said, and he was, 'but I go to this exam and those rich kids all pull out their calculators while I'm sitting there with pencil and paper working things out. They are finished and long gone while I'm still figuring. It's not fair.' It isn't fair. There are students on such tight financial budgets that they can't afford a calculator or new eyeglasses. I'm afraid there always will be. If, in five years, we have twice as much money as we now have available, we will spend it on as many students as possible to the extent of their need and we will have no excess."

Tom said, "I react with anger to the idea that my wife and I must spend much of our slim savings in one year. I

say to myself, 'We'll be broke in two years and we'll have a \$7000 debt.' But I understand that from the University's standpoint, you have to operate in the present."

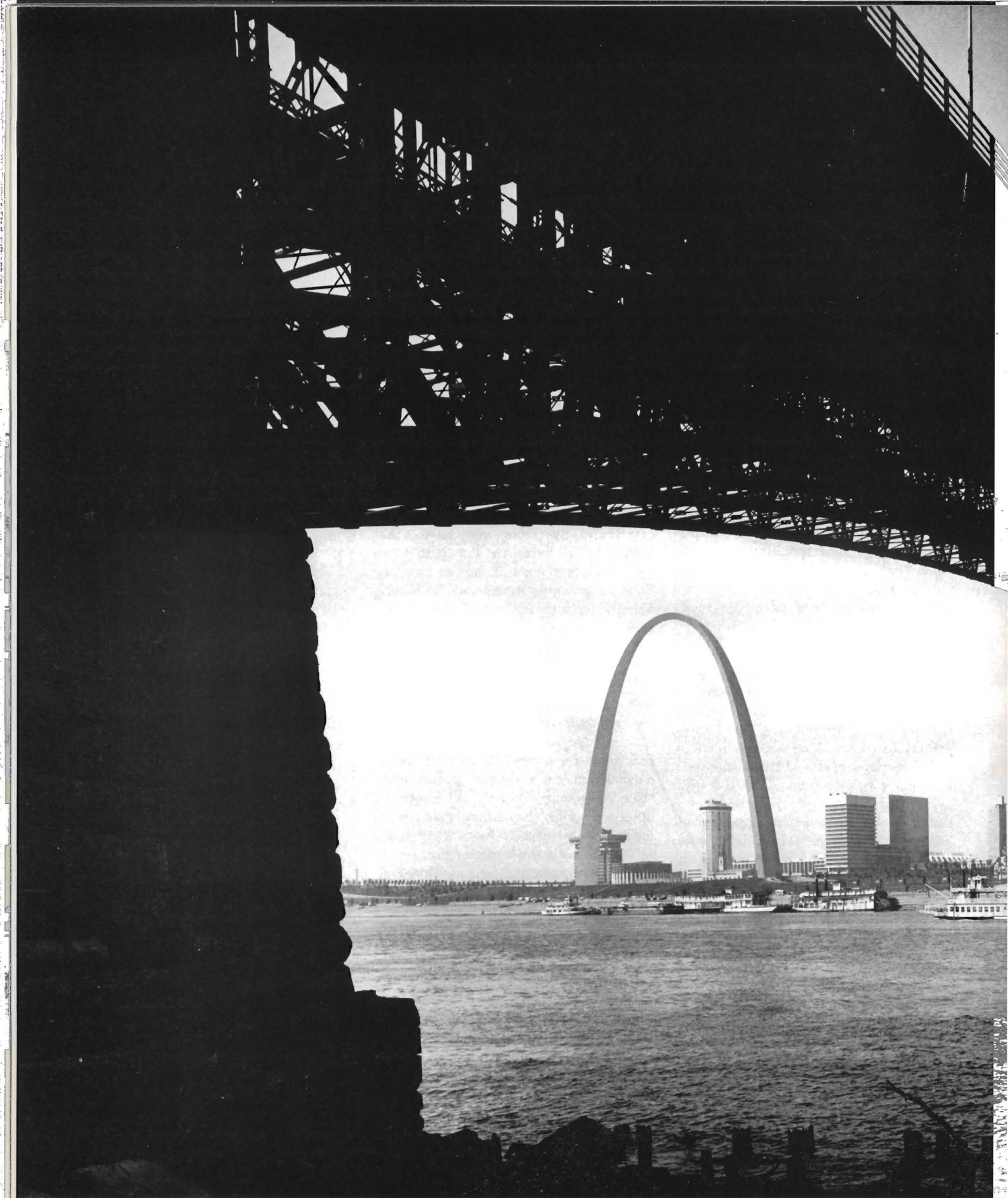
"Frankly," said Ms. Edwards, "a family may be broke in two years or it may not be. We operate on the assumption that it won't be, but we assure student and family there is an open door to return at any time if financial circumstances change."

"Tell me," asked Kenneth, "does the ratio of scholarship to loan change from year to year?"

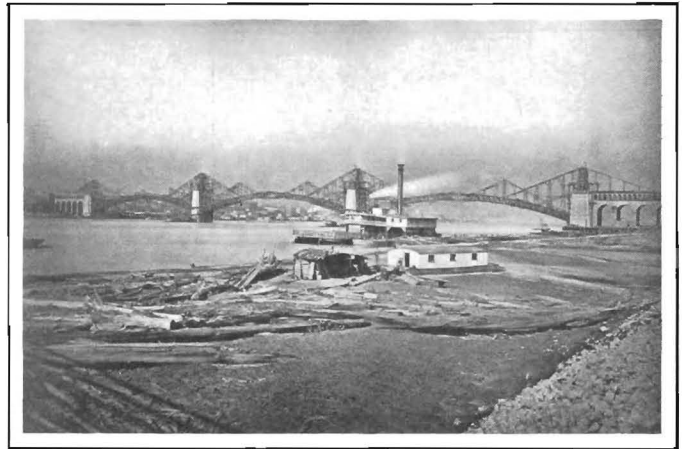
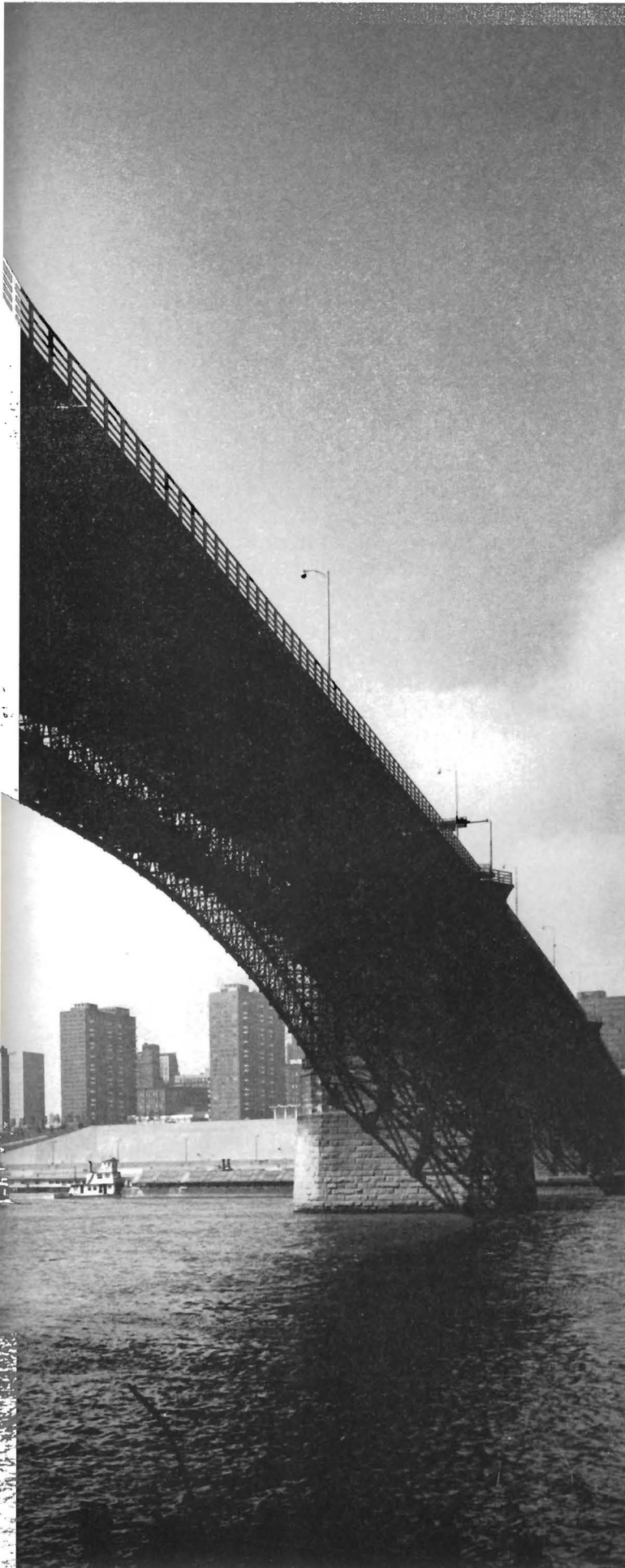
"That depends upon our financial condition," said Mr. Sandler, "though we generally increase the loan as a student advances through school. At present most of you will owe about \$3600 after four years. Although the terms of those loans are tailored to your student circumstances, we try to keep the amount reasonable. In addition to the obvious fact that loans stretch our scholarship funds, the University believes students, as well as their parents, ought to have a financial stake in education."

"Speaking for myself," Bob responded, "that makes it easier for me to justify selecting Washington University. This way my parents don't have to bear the whole burden."

"In some ways I wonder if we're doing justice to the financial problems our educations cause our parents," Tom wondered. "My parents sent my sister and me through college in eight consecutive years. They had a difficult time." Every time I write my folks to tell them what books cost or what my air fare costs, they send me money. They want to, they worry about me, but I know that money comes from their life savings. It doesn't grow on trees."



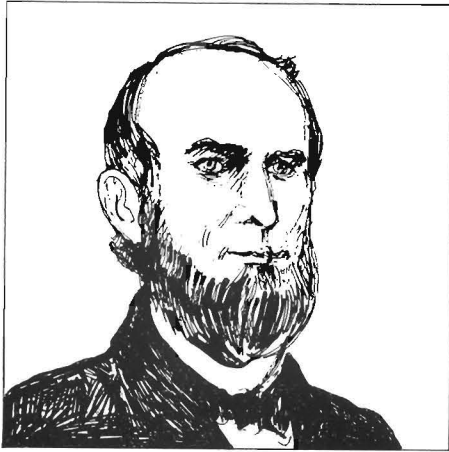
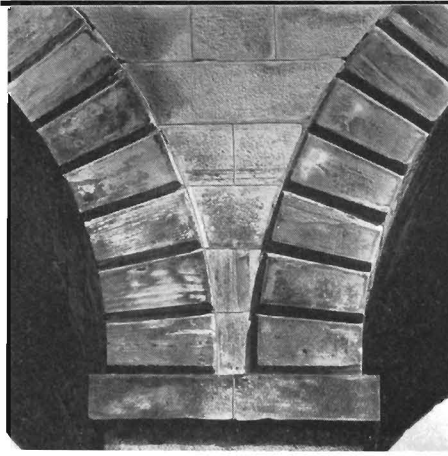
EADS BRIDGE



ONE hundred years ago this past summer, the St. Louis Bridge, conceived by James Buchanan Eads, was dedicated. The first bridge to span the Mississippi at St. Louis, it was the engineering marvel of its age. It was the world's first alloy steel bridge and, in fact, the first important construction of any kind in steel. It was the first to use tubular cord members and the first to depend in the building of the superstructure entirely upon the use of the cantilever. It employed in its construction the first important use, and the deepest, of compressed air in America. It was, finally, the biggest bridge of any kind ever built up to that time.

Eads Bridge, as the structure has been known for most of its century of existence, is an enduring monument in steel and stone to a man whose name has had long association with Washington University. James B. Eads attended no university and had little formal education. While the inspiration for the gigantic bridge that bears his name came from Eads and many of its innovations were his ideas, he relied on a Washington University engineering professor, William Chauvenet, to work out most of the mathematics and the structural theory involved in the bridge's construction. Chauvenet, one of the founders of the National Academy of Sciences, headed the department of mathematics at the U.S. Naval Academy before coming to Washington University in 1859 and served as Chancellor of the University from 1862 to 1869.

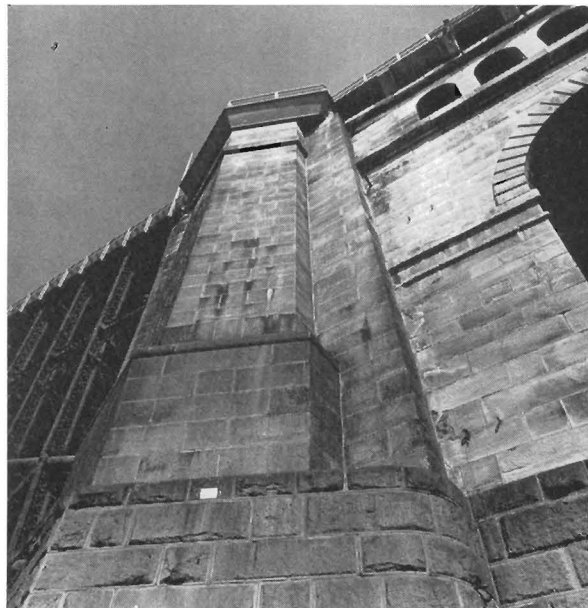
EADS BRIDGE



EADS HALL, one of the first ten buildings to be erected on the present campus, was the gift of Mrs. James Finney How, daughter of James Eads. For many years, the building housed the Physics Department and was the site of the famous "Compton Effect" experiment for which Arthur Holly Compton won the Nobel Prize. Eads Hall presently houses the Department of Psychology.

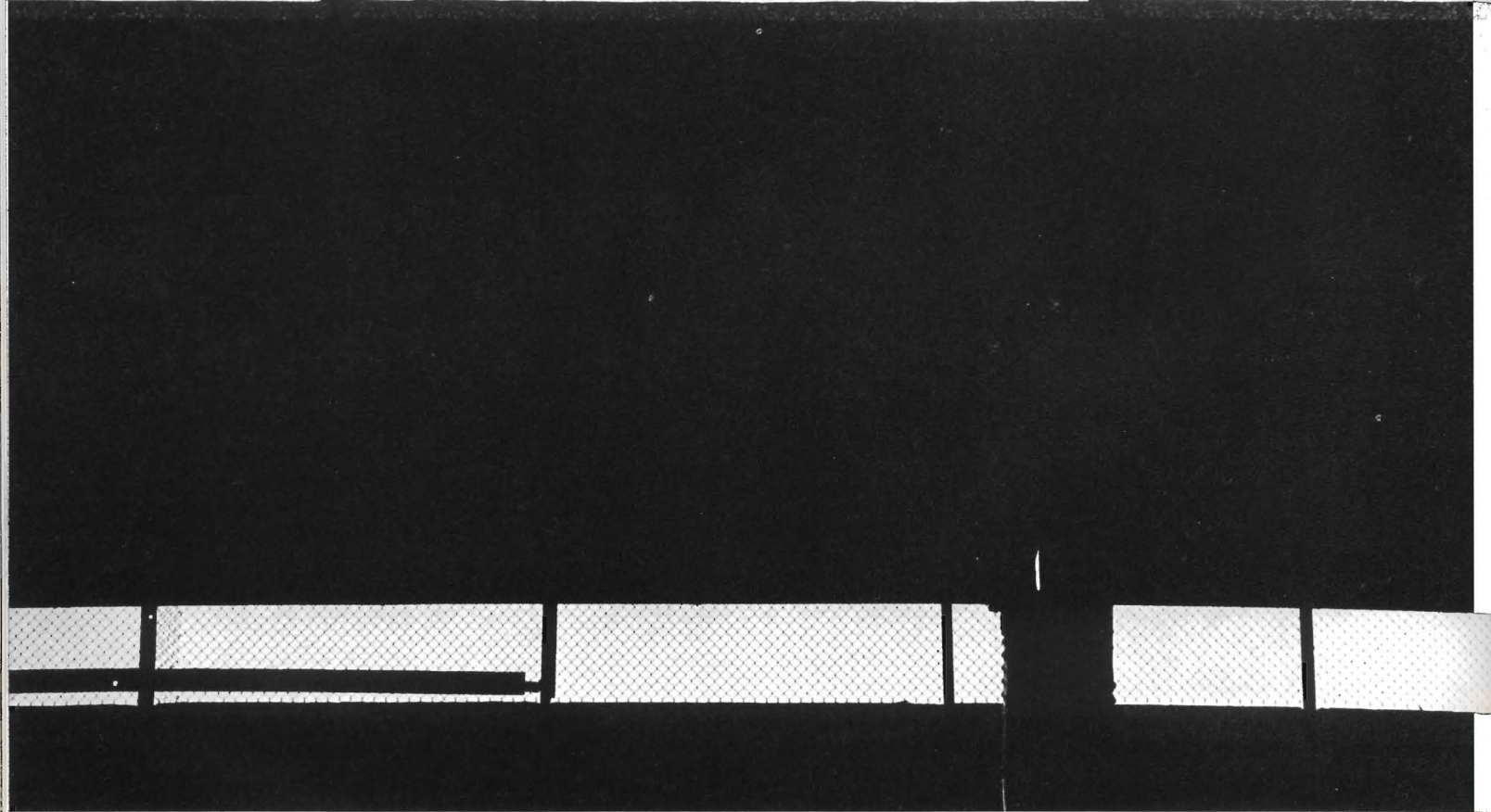
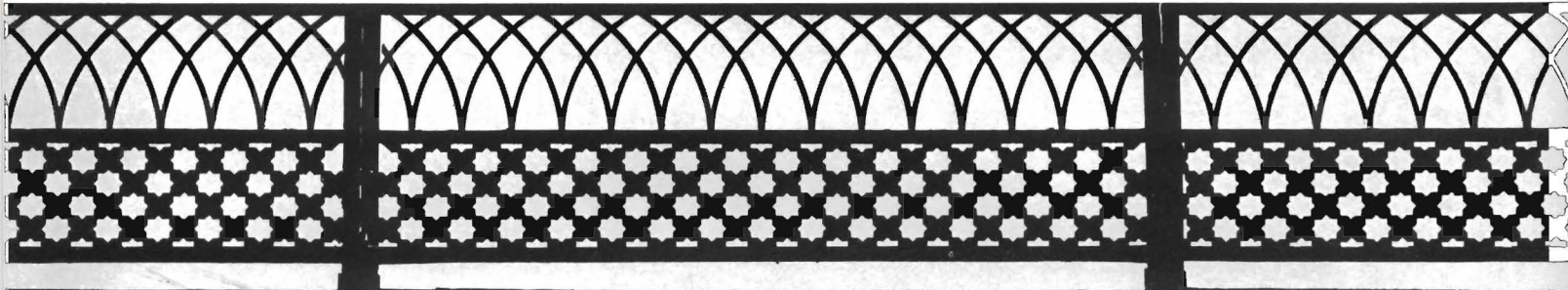
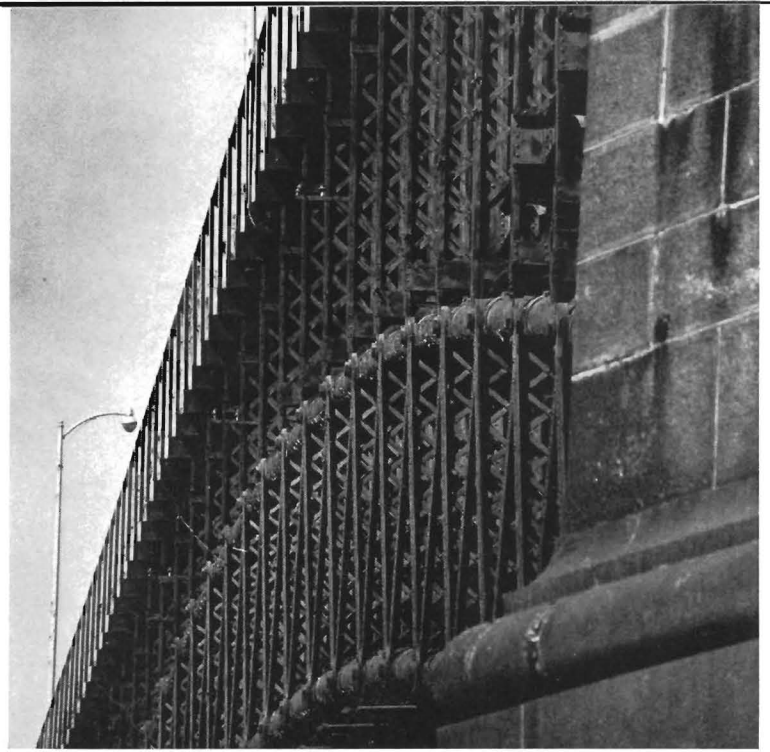
As part of the observance of the hundredth anniversary of Eads Bridge, some 425 original drawings and tracings of the famous structure, many of them signed by James Buchanan Eads himself, were transferred to Washington University. Stored for a century in the vaults of the Terminal Railroad Association of St. Louis, the historic drawings and tracings were accepted by the University as part of its joint collecting policy with the National Museum of Transport.

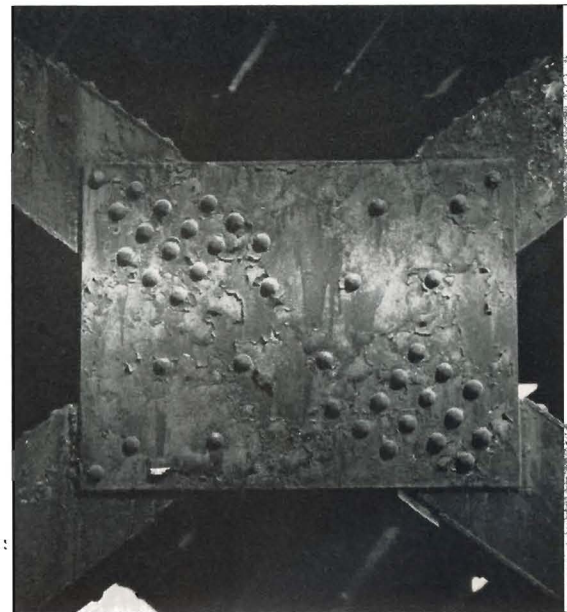
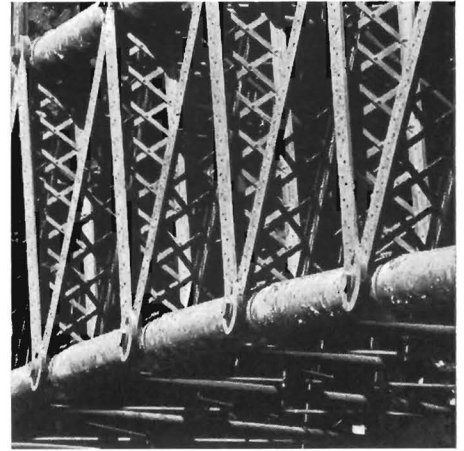
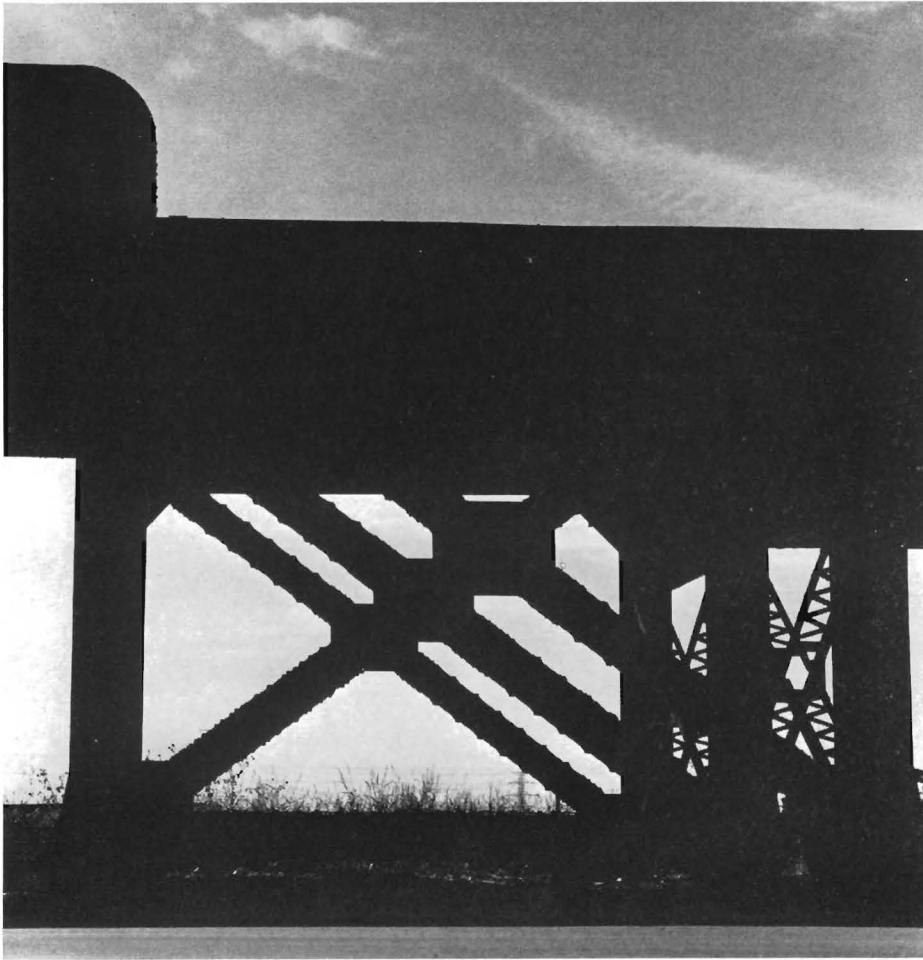
James Buchanan Eads was the principal speaker at the first Washington University alumni banquet, held in 1868. On that occasion, he repeated the statement he made at the dedication ceremonies of the great structure he conceived and brought to completion: "This bridge will endure so long as it is useful to man."





EADS BRIDGE

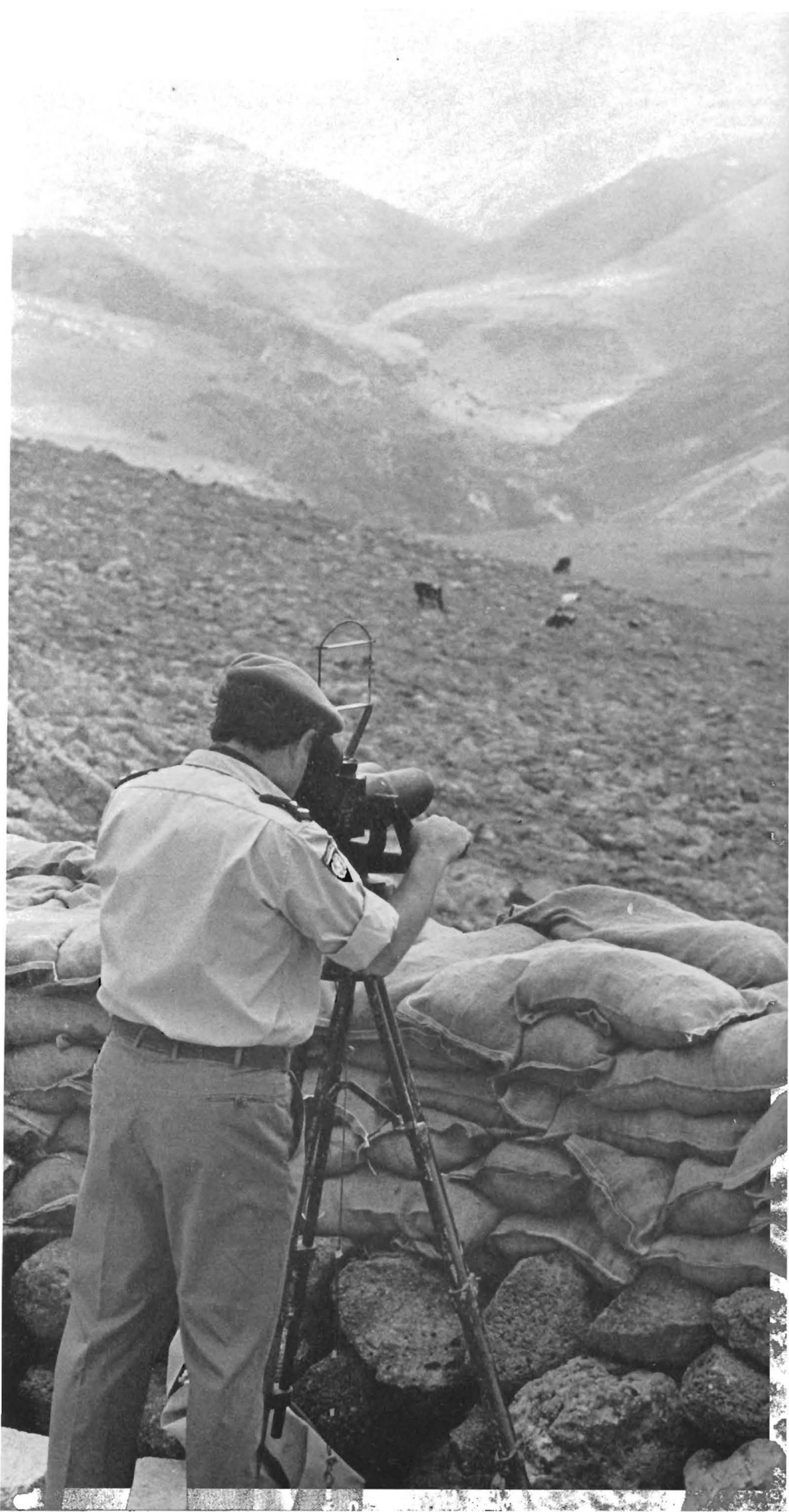




*Photographs by Herb Weitman
and Richard N. Levine.*



A Dutch member of the United Nations Truce Supervision Organization in Palestine mans the southernmost observation post in the Golan Heights. Washington University alumnus Michael Cannon spent several weeks with the truce supervision teams in the field this summer.



KEEPING THE PEACE IN THE MIDDLE EAST

By MICHAEL CANNON, AB 73

Michael Cannon is a Rhodes Scholar from Washington University. At Oxford, he is writing his dissertation on the United Nations truce supervision in the Arab-Israeli conflict. As part of his research, he spent several weeks with supervision teams at observation posts on the Arab-Israeli borders. These are his impressions of the delicate art of keeping the peace.

AS A MATTER OF simple arithmetic, "peace breaks out" just as often as war. War, however, traditionally has a wider following. In the fields of history, international law, and journalism, for instance, the waging of war has naturally been the subject of extensive research. Various techniques of war, the legal and political issues of international conflict, and the sociological and economic implications of war supply much of the raw material from which elaborate history texts are written, and contain the drama with which war correspondents acquire their readers and fame.

The techniques of peacekeeping, *their* legal and political issues, and their implications for the international order have been far less extensively studied, in part because multilateral attempts to keep the international peace have become institutionalized and routinized relatively recently with the Hague Conventions, League of Nations, and now the United Nations. Peacekeeping operations, even that variety which employ a show of force, also lack that element of drama which partially excuses history books for their length and sells newspapers; consequently, one would be hard pressed even to name a "peace correspondent," assuming there is such a thing.

UN peacekeeping operations, as distinct from the massive police action in Korea, have a mixed history. In certain international crises, the UN has shown itself capable of injecting a powerful and perhaps decisive pacific input with its peacekeeping forces, occasionally with relatively small investments of men and money. The crises in the Congo and New Guinea during the early sixties are often cited as examples of how UN peacekeeping forces can contain a conflict, prevent it from becoming a major cold-war contest, and even facilitate its solution under the most adverse conditions. UN missions in the Middle East and Cyprus, on the

other hand, evoke frequent criticism for having failed to resolve or even contain the conflict in their respective areas, despite sizeable expenditures over long periods of time.

UN peacekeeping has assumed a special prominence in international affairs recently, mostly with respect to the Arab-Israeli conflict. At the core of those intense negotiations between Dr. Kissinger, Israel, Egypt, and Syria in early 1974 were questions about the type of UN peacekeeping forces to be employed, their size, composition, and powers. According to one Israeli defense official, General Nissim Levinson, the participation of such forces was to a greater extent than ever before taken for granted by all of the parties (something of an irony in light of the traditional Arab and Israeli image of the UN's Mid East presence—useless in peace and a nuisance in war).

In the wake of the most recent and destructive war, two UN forces were dispatched to the Mid East under the terms of the January 18 and June 6 "Kissinger Agreements." UNEF II (UN Emergency Force) in the Sinai and UNDOF (UN Disengagement Observer Force) in the Golan Heights joined a companion force that has operated in Israel and the Arab states since early 1948. UNTSO (UN Truce Supervision Organization) represents the UN's longest continuous commitment of a peacekeeping force to any part of the world. These three forces, each under separate command, include approximately 7,600 men from seventeen nations. They face the gargantuan task of maintaining peace in an area that has been viciously rent by two extremely dissonant (perhaps irreconcilable) nationalisms, a region further abused by the machinations of both imperial and cold-war powers who have never failed to recognize and quest for the immense strategic and economic assets of the Mid East.

THOUGH DIFFERENT in size and national composition, UNEF II and UNDOF serve essentially the same functions. Both are deployed within long and narrow "buffer zones" between the highly mobile, heavy-firepower armies of the Arabs and Israelis. In the Sinai, UNEF II's 6,000 troops man a strip ten kilometers wide stretching from the Mediterranean to the Gulf of Suez. In the Golan Heights, the 1,250 men of UNDOF patrol a zone varying in width from just 400 meters to ten kilometers and extending from Mt. Hermon's summit to the Syria-Jordan border.

The first and most pressing task of the peacekeeping forces was to plan and supervise the Israeli withdrawals to its side of the UN zones and to prepare detailed maps of the respective armies' positions in relation to the UN force and each other. An army in withdrawal is an exceedingly vul-

nerable force, with men and materiel clustered in unusually high concentrations and in poor defensive positions. The withdrawal of men and armor from Israel's newly won positions was a slow and tedious process, but without incident. Both UNDOF and UNEF labored to avoid contact between Israelis and Arabs wherever possible, and to supervise such contact when it was unavoidable. Captain Ahlgren, a Swede seconded to UNDOF, noted that the most difficult phase of withdrawal came when Syrian troops had to be brought into Israeli-occupied territory to assist UN and Israeli troops in locating and dismantling mines. He observed that "both sides were surprisingly cooperative with the UN soldiers who stood guard" while a joint Israel-Syrian patrol scavenged for mines.

With the buffer zones released by Israel, UNEF II and UNDOF now exercise three functions. Their most demanding and controversial activity is the frequent and usually rigorous inspection of the "limited forces" zones on either side of the UN buffer zones. (In the south, neither side may maintain more than 7,000 men and thirty tanks in the ten-kilometer limited forces area abutting the UN strip. In the north the limits are 6,000 men and forty-five tanks.) These inspections, which are necessary if either side is to feel militarily secure enough to negotiate, are also controversial because the results of UN inspections do not always accord with the combatants' own intelligence estimates and frequently become the basis for charges of UN partiality.

UNEF II's and UNDOF's second chore is to observe the activities and movements of the conflicting armies as best they can from tactically-sited observation posts within their buffer zones. They are, in essence, an intelligence source for the Secretary General of the UN, albeit a rather crude one.

BUT 7,250 MEN are not needed simply to inspect and observe—UNTSO has been doing that and much more for twenty-six years, and never with more than 600 officers. The primary purpose of UNEF II and UNDOF's mission is to interpose these large and (perhaps) combat-ready forces between the armies of Israel and the Arab states with the expectation that for several reasons such interposition can prevent renewals of warfare and even prod the parties into negotiating in relatively good faith.

The theory of peacekeeping by interposition was first enunciated and practiced by the UN in 1956 by then Secretary General Hammarskjöld. Responding to the invasion of Sinai by Israel, launched partially to stem the rising tide of feydayeen attacks from the Gaza area, Hammarskjöld and Lester Pearson of Canada collaborated to design and secure



A view of Observation Post MIKE in Suez City. Here, a United Nations military observer was killed during the shelling in the late 1960's.

General Assembly approval for a large UN Emergency Force. UNEF I was stationed on the Israel-Egypt border after covering Israel's protracted withdrawal from its conquests in the Sinai. The force is chiefly remembered for its sudden and rather inglorious withdrawal at Nasser's request in 1967. What is frequently forgotten, however, is that for eleven years, the 6,000-man UNEF I "froze" the Gaza Strip and the Israel-Egypt border, completely halting the murderous cycle of infiltration, terrorist attack, and retaliation that had precipitated Israel's invasion of 1956.

PEACEKEEPING authorities expect that stationing large and visible contingents of armed UN troops between opposing armies whose frontline positions are quantitatively limited should produce a decisive impediment to major military ventures launched by either side for three reasons. First of all, by stealing from the combatants their ability to initiate a surprise attack, the UN force attaches a large and perhaps prohibitive cost to the aggressor's plans. Security from such attack is probably also a necessary, though hardly sufficient condition to sincere and energetic political negotiation. Perhaps even more important is the public relations damage that might be suffered by either side demanding the withdrawal of a peacekeeping force or actually attacking it. This is of particular relevance in the Mid East, where none of the combatants even approaches self-sufficiency in war materiel, and where, as the recent U.S.-Egypt rapprochement demonstrated, a rigid, cold-war alignment of powers does not exist. Israel and the Arab states alike are still compelled to "sell" themselves both to the UN and world powers. Finally, an interpositional force serves the invaluable function of keeping hostile armies out of each other's sight. As the various "wars of attrition" fought on Israel's borders since 1967 demonstrate, when nothing more than a little barbed wire and a line on a map divide Arab and Israeli armies, tension is such that, as in the old French saying, "the guns begin to fire themselves."

Should one of the parties request the withdrawal of an



interpository force, however, his opponent will view that move as tantamount to a declaration of war. (Israeli Defense Force Chief of Staff, Mordechai Gur, has said on occasion that his nation would consider a "first strike" against the Arab states if they persuade the Secretary General and Security Council to remove the UN peacekeeping forces.) This is the gamble of UNDOF and UNEF II; if they depart before peace is made, they'll be leaving the Mid East even fewer alternatives to war than existed before their arrival.

UNEF II and UNDOF were remarkably well supported in the UN Security Council, presumably because the belligerents themselves agreed upon the need for such a force. The establishment of large, armed peacekeeping forces requires a far greater degree of unanimity in the Security Council than normally exists. While UNEF II and UNDOF have passed this hurdle, there is no guarantee that they will retain Security Council support over the years to come. Another difficulty with such interpository forces is the high cost of maintaining thousands of men and their armaments in relatively remote regions of the world. The actual budget figures for the first year of UNEF II and UNDOF operations will not be computed until January, 1975, but the cost could be as high as \$25 million.

WHILE INTERPOSITORY forces are impressive as a symbol of UN determination to keep the peace, and such forces do render war a less attractive option to conflicting parties, they cannot exercise as wide a range of strategies for the active pursuit of peace as the third member of the peacekeeping triad in the Mid East, UNTSO, has done for the past quarter century. Truce supervision is a very different, more complex concept than peacekeeping by armed interposition.

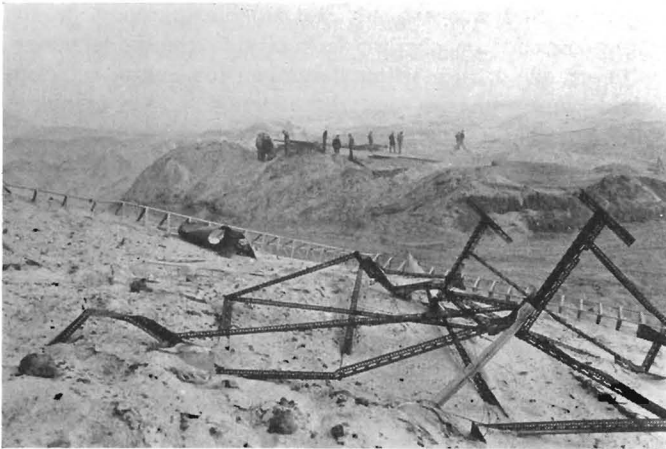
UNTSO's establishment in 1948 by the Security Council was hardly a conscious design or strategy—it didn't even possess a name until a year after it had begun its task. Instead, UNTSO was a hasty, ad hoc arrangement in which two earlier peacekeeping organizations that the infant UN had desperately thrown into the Palestine War were combined and supplemented by military advisers. In groping for the way to bring the Arab-Israeli war under control, this UN force stumbled into a pattern of cease-fire and comprehensive truce control that has been repeatedly emulated elsewhere in the world.

UNTSO grew out of the Consular Truce Commission and the Office of Mediator for Palestine. The Truce Commission, composed of the representatives of UN member states with career consular offices in Jerusalem, was virtually

trapped in that war-ravaged city. Unable to report on the fighting outside the city for lack of safe transport, powerless to arrange a truce within Jerusalem for lack of sufficient visibility and authority, and disheartened by the casualties it was suffering, the Truce Commission gave poignant testimony in their cables to the UN of the frustrations and dangers of peacekeeping missions. One week after Israel had declared its independence and reported the invasion of five Arab armies, Count Folke Bernadotte of Sweden was appointed to the post of Mediator for Palestine. After two weeks of intense negotiations, the Mediator and the Truce Commission secured the Arab states' acceptance of a four-week truce. (Israel had already agreed to one.) When Bernadotte and the Truce Commission were unable to negotiate an end to the fighting which followed the expiration of the truce, the Security Council imposed another truce upon Israel and the Arab states, one which involved the threat of UN sanctions upon either side that refused to honor it.

DURING THE FIRST truce Bernadotte and the Truce Commission rapidly realized their desperate need for highly trained military personnel to supervise the agreement to end hostilities; the truce was not a simple ceasefire, but also involved wide-ranging restrictions on the importation of military equipment and personnel, the recruitment and training of soldiers, and the movement of forces. In general, the Security Council had determined that "no military advantage should accrue to either side from the application of the truce," presumably so that high-level political negotiations could take full advantage of the respite. Unfortunately, Bernadotte was hopelessly inept as a mediator, managing in the short space of two weeks to incur the wrath of Arabs, Israelis, and most of the Great Powers. He was far more competent, however, in assembling and directing the truce supervision machinery which was manned primarily by military officers from the three Truce Commission states: France, Belgium, and the U.S. Until 1953, these states provided 90 per cent of the military personnel and most of the equipment for UNTSO.

The peacekeeping policy of permitting "no military advantage" presented several conceptual and many technical problems. Time alone conferred military advantages upon the defense, Israel in this case, and the Jewish state's steady *political* consolidation was widely construed as another sort of "military advantage" gained under cover of the truce. Ultimately, "military advantage" took on a rather narrow, technical meaning and necessitated more than ever a well-trained observer corps.



Former site of Observation Post COOPER, where military observers from France and Italy were killed this fall. The site is close to the "Bar Lev" line, the former Israeli position along the east bank of the Suez Canal.

Observation and reporting on the governments' compliance with truce or armistice restrictions are perhaps the most widely known functions of UNTSO. Many of the variable and complex considerations involved in making war pertain to these and UNTSO's other peacekeeping tasks. Israel and the Arab nations do not provide ideal terrain for comprehensive truce observation. The total area to be observed in 1948 was enormous—seven Arab states and Palestine. Roads were few and frequently contested. The diverse and usually rugged territory militated then, as now, against the extensive use of fixed observation posts, necessitating the more dangerous and less effective jeep patrols. Aerial reconnaissance was required in 1948 to insure as far as possible that weapons or men weren't smuggled past the UN naval blockade of Palestine. Logistical difficulties precluded the organization of UNTSO into regional commands so that when infractions of the truce were reported, such as illegally erected fortifications, UN observers often had to be dispatched to remedy the problem from as far away as Haifa or Jerusalem, regardless of where the incident had taken place. This emphasis on mobility increased in turn the importance of UNTSO's communications facilities, which were pitifully inadequate until 1967. Most of these considerations command less attention today both because UNTSO's range of responsibility has diminished and because its equipment has been improved.

Until recently, UNTSO's functions were not limited to

observation and reporting of armistice violations, and in fact, these were not its most efficacious peacekeeping tools. Vigilant observation by UN observers was intended to attach additional costs to either side's attempts to improve its positions under the truce. In theory, then, military operations would either involve extra labors to avoid early detection and accusation by the observers, or a belligerent would have to reckon his publicly established guilt as part of the final results of his military action. Such factors were probably decisive in marginal military operations where the expected gain did not far outweigh the probable costs, but they had little relevance to the actions of either side's irregular forces, and less importance to the planners of major military campaigns.

FAR MORE IMPORTANT was UNTSO's role in arranging, mediating, and supervising the various "local commanders' agreements" which frequently prevented the development of a crisis. One local commanders' agreement demilitarized Mount Scopus to the northwest of Jerusalem, placing it under armed UN guard and preventing the seemingly inevitable battle for its control. In Jerusalem itself, where opposing soldiers were frequently only a street's width apart, another UN negotiated agreement separated the front lines and created a "no-man's land" that more than any other factor kept the Holy City from erupting into full-scale warfare. Other local commanders' agreements were concluded that produced Israel-Jordan cooperation in attempting to shut off infiltration.

An apparently innocuous chore, mapping the positions of the conflicting armies at the commencement of a truce, has proven to be enormously important. In the four-week truce of 1948, UNTSO observers were slow to complete this task, and both sides engaged in violent and costly attempts to improve their position during the first hours of the truce. During the second truce (July 1948 to April 1949) UNTSO did not repeat its mistake, and far fewer incidents marred the first months of that truce as a result.

UNDER THE General Armistice Agreements (1948-1956), UNTSO became the arbitrator and independent investigative authority for the four "Mixed Armistice Commissions," bipartite committees including Israel and each of the surrounding Arab states. The Commissions were, from the first shrouded in confusion over the appropriate role for the UN. In investigating possible violation of the armistices, for instance, UNTSO observers were supposed to submit interpretive and accusatory reports whenever possible, according to General Levinson. "Not so," says Colonel Howard of



A Canadian major plots and a Dutch major observes in an observation post in the Golan Heights, the scene of heavy fighting last year.

UNTSO (Australian). "There has never been any call for opinions in the work of UNTSO observers and there never will." (Security Council documents of 1948 indicate that one of UNTSO's Chiefs of Staff did instruct his observers to file "full and accusatory" reports when they felt justified in doing so.) In any event, the Commissions collapsed one by one, and UNTSO reassumed its pre-armistice functions in addition to administering several demilitarized zones and supervising prisoner exchanges. Negotiating local commanders' agreements along the Israel-Jordan border and mapping the same acquired special importance as such moves were seen to be a potential prelude to a peace agreement between the two states. Although no such record has been kept, UN and Israeli defense officials agree that many emergency ceasefires at a local level were arranged by UNTSO during the 1950's.

UNTSO shrank considerably between 1949, when it included 600 officers and as many civilian employees, and 1966, when it was one-fifth as large. Following the Six Days War, in which the head of UNTSO, General Odd Bull of Norway, distinguished himself by securing the ceasefire between Israel and Syria, UNTSO was enlarged to permit sustained observation in the Suez Canal and Golan Heights sectors. (The 1967-1970 war of attrition in these areas took at least sixteen UNTSO lives.) Despite its enlargement, UNTSO functions were curtailed to observation and reporting only.

The last war and the establishment of UNEF II and

UNDOF reduced UNTSO's visible peacekeeping efforts once more, while again increasing the organization's size (298 officers, including thirty-six each from the U.S., Russia, Sweden, and Finland). UNTSO observers are permanently stationed only on the Lebanese side of the Israel-Lebanon border, a most troublesome area in terms of terrorist attacks particularly. UNTSO observers consider the hilly and forested border between Lebanon and Israel especially difficult to patrol, a factor which will become more significant should the undeclared war between Israel and the Palestinian irregular forces intensify. Dr. Remy Gorgé, principal political adviser to UNTSO's Chief of Staff, noted that although UNTSO was not mentioned in the Kissinger accords, Israel and Egypt did agree that experienced UNTSO personnel should direct the inspections of the limited forces area in the Sinai. A similar agreement is apparently in effect in the Golan Heights as well, since three of the UNTSO observers I interviewed had recently served tours of duty there. In general, however, UNTSO has indeed become the "little brother" of the UN peacekeeping triad in the Mid East.

FOR A PROFESSIONAL soldier, peacekeeping is not interesting work. It is demanding, however, of the individual observer's capacity for sound and discreet judgment. In addition to maintaining a scrupulous neutrality, one observer (Captain Brygftell of Norway) remarked that the most difficult part of his work was determining how accurate to be in his reporting. "If I am too accurate in radioing headquarters about an artillery attack for instance, specifying the exact origin of fire and point of impact, I will probably be conveying valuable military information to one of the armies." If he reports too little, the aggressor, in effect, gets away with his crime.

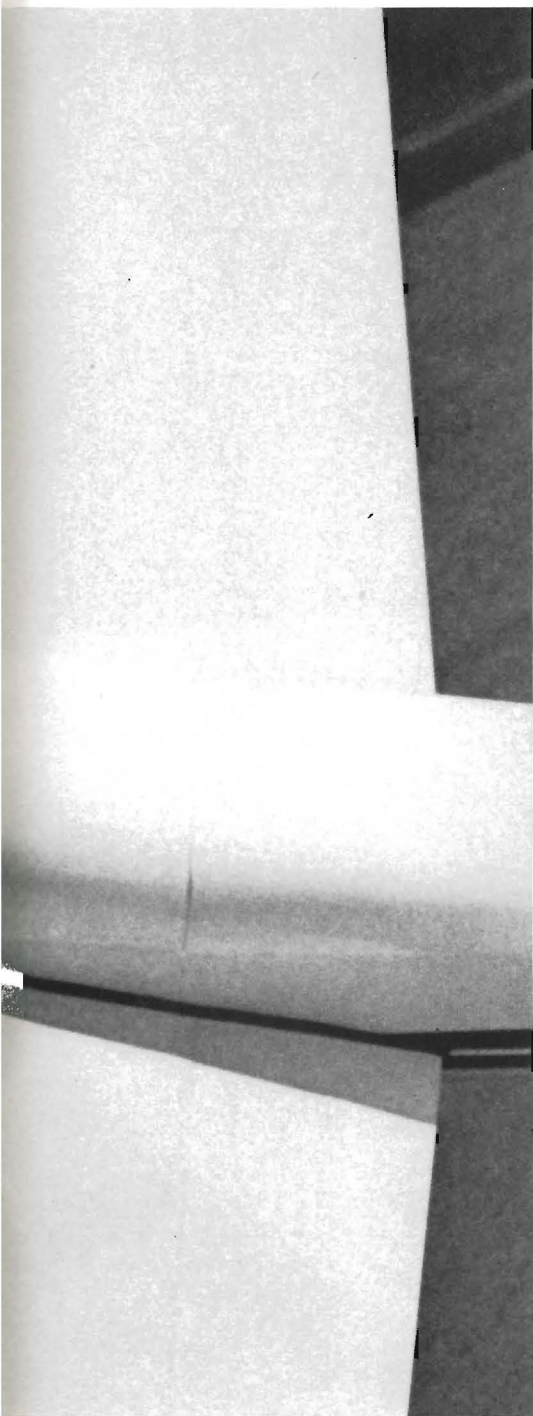
Most observers cite their opportunity to meet and cooperate with soldiers from other lands as the most rewarding aspect of peacekeeping work. They understandably do not agree that theirs is a pointless mission or that UN peacekeeping forces in general are "useless in peace and a nuisance in war."

UN peacekeeping, whether by interposition or truce supervision, is a stopgap measure at best. After all, nations must learn at some point how to coexist with their neighbors without UN or other outside assistance if they are to attain real and sustained peace. Critics of the UN's inability to prevent all major outbreaks of war in world trouble spots expect perhaps too much and thus overlook the limited, but important potential of UN peacekeeping operations.

Right: Lattie Coor in cockpit of sailplane, preparing for takeoff. Below: Soaring along at 3000 feet above western Illinois.



A Soaring Vice Chancellor



ONE BRIGHT, clear Saturday afternoon this past summer, Washington University Vice Chancellor Lattie F. Coor was comfortably seated, listening to a radio broadcast of the Metropolitan Opera's performance of "La Traviata."

On that day, Vice Chancellor Coor was seated approximately 3000 feet over western Illinois. His seat was the snug cockpit of a chartreuse and white sailplane; his radio a tiny transistor balanced on his lap. Except for Violetta's fervent cries of "Ah, fors' è lui!" he was surrounded by silence. "Soaring is the ideal way to relax, to overcome the tensions of a busy job, to gain perspective," he advises. "There are no telephones in sailplanes and nobody can come knocking at your door. It is the ultimate in elegant detachment."

Lattie Coor may have taken up soaring because it starts with an "s." His other avocations are swimming, surfing, skiing, scuba-diving, spelunking and sailing. (He also enjoys mountain-climbing and rock-scaling, but they don't fit the alliteration.) Although he has been interested in sailplanes for most of his life, Professor Coor didn't begin soaring instructions until about two years ago. "The program of instruction and the qualifications for a sailplane license are just about as tough as those for pilots of powered craft," Coor observes. Now a licensed glider pilot, he does his offhours sailplaning as a member of the St. Louis Soaring Association, which operates from a small field near Highland, Ill., about thirty miles east of St. Louis.

WHEN DR. COOR can find time in his busy schedule, he drives to the Highland airport, checks out one of the Association's sailplanes, and arranges to be towed to about 3000 feet. At that point, he releases the tow cable and he's on his own. If it is a still day, with no thermal updrafts to be found, he will be back on the ground in about nine minutes. If he can find the thermals, he can spend hours soaring through the sky. It is possible in a sailplane to make long and precise cross-country flights and Coor has done it many times, zigging and zagging across the sky looking for thermals and tacking against the wind like a sailboat. Running out of thermals on a cross-country flight can be a little awkward, Coor admits. On one occasion he had to land in a cornfield and spent the two-hour wait for his crew to pick him up eating the oatmeal cookies an elderly farmer's wife offered him and trying to answer her persistent question, "Why did you land your helicopter in my cornfield?"

"The real satisfaction in soaring," Lattie Coor maintains, "is the experience of sailing through the sky in silence. Soaring is like skiing or sailing alone. It is not a team sport; it is an individual and highly personal challenge. You are pitting yourself against nature and the elements; but when you succeed you become part of them."





Comment

FIRST ANNIVERSARY

OCTOBER 12 marked the first anniversary of the Mallinckrodt Center and Edison Theatre. In its first year of operation, the new center is rapidly becoming the focal point of the campus that its planners predicted. Located at the crossroads of the campus, it is the natural gathering place for students and faculty. The cafeteria has been doing a more than brisk business, the new and greatly enlarged bookstore has lived up to expectations, and the central courtyard has been the scene of countless impromptu concerts and happenings. Completion of the rathskeller now under construction should add greatly to the Center's role as the campus hub.

From the opening Festival of the Arts last year to the present, Edison Theatre has provided both the campus and the community with an exciting new cultural asset. Some fifteen major productions have been brought into Edison Theatre that otherwise would probably not have been available in the St. Louis area. The theatre has proved also to be an invaluable teaching facility in the performing arts. Its presence has led to a renaissance in the dance and drama and musical performance on campus.

The first year of any new enterprise is always somewhat in the nature of a shakedown cruise. Problems arose in many areas, adjustments had to be made, but all in all, the new Center and its beautiful new theatre more than lived up to expectations.

DESPITE REPORTS of reduced enrollments at many of the nation's colleges and universities, there has been a slight increase in enrollment at Washington University this fall. Full-time undergraduate and graduate enrollment this year was 8047, an increase of twenty-eight students over last year.

The greatest increases were in the Schools of Social Work, Business and Public Administration, Engineering, and Law. Medicine, Dental Medicine, and the graduate schools of Architecture, Business, and Fine Arts also showed increases. Decreases were reported in both undergraduate and graduate Arts and Sciences, graduate Engineering, and in undergraduate Architecture and Fine Arts.

IN THE ARTICLE on scholarships in this issue, it is pointed out that approximately 35 per cent of all Washington University undergraduates received some kind of scholarship or other financial aid. With constant inflation forcing higher tuition rates, adequate funds for scholarship aid have become of extreme importance. Additional funds for scholarships

are among the major objectives of the challenge program to match the \$60 million Danforth Foundation grant.

Recently, the University's School of Fine Arts received a Ford Foundation grant for \$150,000, which must be matched with \$170,000 over the next three years. According to Dean Lucian Krukowski, the School plans to use the grant initially for twenty \$1000 scholarships. The scholarships will be renewable each year if the student meets the educational requirements, and the procedure will be continued over a seven-year period.

SPEAKING OF the fine arts, the University's Steinberg Gallery of Art has received several important paintings and sculptures from the estate of the late Mrs. Mark C. Steinberg. Included is the major Picasso oil on canvas, "Les Femmes d'Alger," which formed the centerpiece of a recent Steinberg Gallery exhibit of Picasso paintings, ceramics, etchings, lithographs, and engravings from the Washington University collections.

In her will, Mrs. Steinberg also left one million dollars to the University's Department of Art and Archaeology. Earlier gifts from the Mark C. Steinberg Charitable Trust made possible the erection of Steinberg Hall.

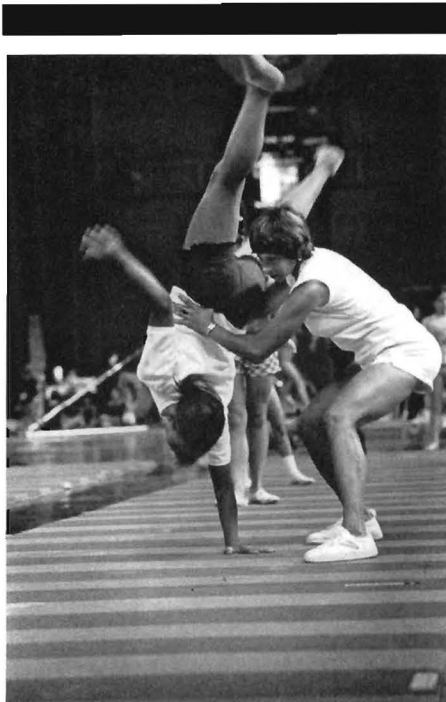
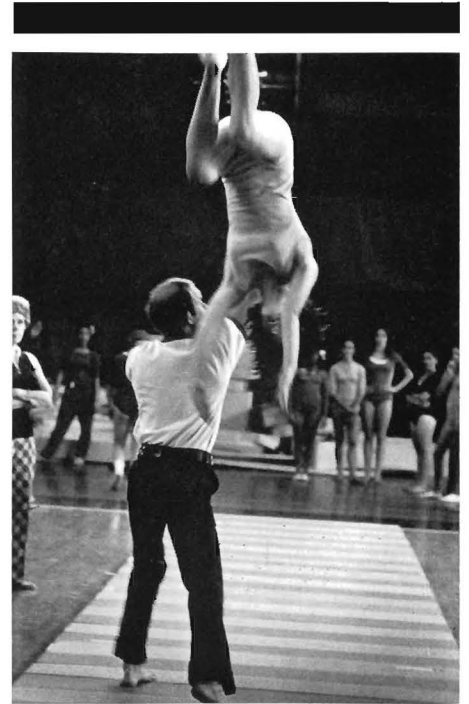
WHEN Professor Michael Fox's book *Understanding Your Dog* came out, it was possible to use the Washington University campus as a laboratory to check out his observations on canine behavior. Then, as now, the campus had a flourishing dog population, like most other campuses. Cats are another matter. If you want to check out Professor Fox's comments in this issue about cats, you have to go beyond the campus. For some reason, there is a great scarcity of cats on campus—and the reason, no doubt, is the large number of dogs.

In all our years here, we can remember only one campus cat. He was a huge black creature who lived in the Music Department. He went under the name of Béla Bartok. Often, Béla Bartok would leave the Music Department and cross the few yards of campus to Alumni House to visit us. We had a feeling that even with a name like Béla Bartok, he wanted to get away from music for a little while and listen to nothing but the clatter of typewriters. —FO'B



In its first year of operation, Mallinckrodt Center has become the focal point of the campus.

Future Olga Korbut and Eizo Kenmotsuses work out at the Youth Gymnastics Workshop held this summer at the Washington University Field House. Some 180 boys and girls, age nine to eighteen, participated in the workshop sponsored by the Metropolitan St. Louis YMCA in cooperation with the Nissen Corporation and Washington University.



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