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SUGGESTED REMARKS
FOR PRESIDENT BUSH
WASHINGTON UNIVERSITY
FEBRUARY 17, 1989

Chancellor Danforth, Honored Guests, Ladies and Gentlemen, Friends. Thank you for that gracious introduction. And let me thank all of you for the privilege of sharing this occasion.

Mark Twain, once wrote: "In Boston, they ask, 'How much does he know?' In Philadelphia, 'Who were his parents?' In New York, 'How much is he worth?'"

But Mark Twain was a Missourian. He would agree with me that you couldn't put a price tag on this morning. Believe me, it is priceless, and I'm delighted to be here in Missouri:

--The home of ragtime, aerospace, and agriculture;

--The state whose native sons include Omar Bradley and Harry Truman and that master linguist, Yogi Berra;

--The State, moreover, whose citizens embody the best of America, and who know that the heart of America is good: working, serving others, hoping, and dreaming.

For 136 years this university has played a part in that effort. Your community has built a pioneering effort in science and mathematics. Your teaching, research, and soaring admission applications tell a story of academic excellence.

But Washington University has another story to tell -- a story from which all America can learn. It's a story about investing in America's future: How as students and faculty, administrators and alumni, you have shown that service and volunteerism can enrich education, and enrich America.

Your work with Sunday's Special Olympics is but one chapter in that story. Around the Nation, other chapters are being written every day. And we're writing another chapter by opening the Office of National Service, which will lead my Administration's community and national service programs.

One of the principle objectives of the office is to cause a substantially greater number of individual groups and institutions to more effectively serve their communities and the nation.

My friends, from now on in America any definition of a successful life must include serving others -- in the day-care center, in the corporate boardroom, at the Rotary, at Little League, or a tutoring program and in church.

Our new initiative will reflect that spirit, once called "America's genius for great and generous deeds." And I take special pride in the YES Program -- or Youth Entering Service -- which I proposed last fall to encourage American youth to give of themselves and to others in need. I am convinced that many national problems can be reduced by substantially increasing the involvement of young Americans in voluntary service. The establishment of the YES Foundation will help lead that effort.

Together, we can show that what matters -- matters in the end -- are not possessions: What matters is engaging in the high moral principle of serving one another. That's the story of America that we can write.

Eight days ago, in a joint session of Congress, I proposed a budget to achieve these goals -- to serve the gentler impulses of mankind. I listed four national objectives: to bring the deficit down; to invest in America's future; to find solutions to an urgent set of priorities; and no new taxes.

Our budget curbs the growth of Federal spending while we provide for the most vulnerable among us. It is responsive and responsible, and will ensure a strong and stable economy. Our budget balances social concern with fiscal sanity, and leaves power in the hands of people. It shows that we can have a government with a heart as well as a head.

When it comes to reducing the deficit, some people say it can't be done and still meet our social needs. But it can be done, but not with business as usual.

Next year alone, thanks to economic growth, Federal tax revenues will rise by more than \$80 billion. That's right -- more than \$80 billion in new revenues. Our job is to allocate new resources wisely: to reduce the Federal deficit by more than 40 percent billion and, with no new taxes, invest in key priorities.

Budget negotiations with the Congress are underway and we are making progress. Yesterday, I invited congressional leaders back to the White House for another round of budget talks (time to be determined). I am committed to working closely with

my friends on the Hill to help meet the target date set by the Gramm-Rudman-Hollings law for an April 15th budget resolution.

Together, we can make the budget process work.

There are certain priorities that demand attention. Yes, we can afford to increase spending -- modestly, selectively, and only after tough choices are made. And we must spend enough to protect our national security -- a chief responsibility of every President. And certainly we must not fall back to the "Tax and Spend" policies of the past.

But programs that work can be protected; in some cases, funding increased. Our budget is fair to recipients, fair to tax-payers, and fair-minded in its strategy. It embodies two qualities which are always in season: The common sense that Learned Hand termed "the eventual supremacy of reason," and America's capacity to care.

Most Americans believe that in the America of the 1990s, our challenges must be met by government, by thousands upon thousands of other institutions and by the people themselves working together -- or they will not be met at all. The government's contribution is critical but by itself is insufficient to solve all of our national problems.

Yes, most Americans believe that we must reach beyond government, caring about our communities and assisting our neighbors. But they also believe that government can be an important catalyst in that process of helping individuals, our communities and our nation.

Accordingly, our budget does more, for instance, for the environment, more for the Space Program, and invests almost \$2.2 billion for the National Science Foundation to promote basic research. It increases funding for the Head Start Program, and allocates \$1 billion in additional outlays to stop the deadly scourge of drugs.

To Minority America, this budget says: "Education means opportunity and bigotry will not be tolerated." To the homeless, this budget targets \$1 billion, saying: "Our Nation must leave no one out." To the elderly, this budget vows: "Your dignity and concerns will be respected." And to the Nation's youth, this budget says: "The promise of tomorrow lies in the children of today."

Consider: We have proposed a new child care initiative, targeted at low-income families. We have restored and doubled the tax deduction for adopting special needs children. Even more, we have made education the Gateway Arch of the Bush Administration. For our pursuit of excellence is central to the future of America. And if excellence breeds achievement, then excellence must be rewarded--in grade school, in high school, and at the colleges and universities of America.

Last Thursday, I asked Congress to create a \$500-million program to reward America's best schools--"merit schools"--and to found special Presidential awards for the best teachers in every State. I urged expanded use of magnet schools--giving families and students a choice in education. And I proposed a new program to encourage "alternative certification" -- allowing qualified

and talented Americans from every field to teach in America's classrooms.

We must bring more of the best and brightest back to the teaching profession. And through a new program of National Science Scholars, we can inspire their students, too -- giving America's youth a special incentive to excel in science and mathematics. In short, I wish to achieve, nationally, what this university has done, historically: To make excellence in learning a national way of life.

Education can ennoble the American Story. It is the best way to invest in our future, and to make this a better, more selfless, more tolerant world.

We have set the right priorities in the budget. We have work to do. There are many problems that must be solved in America today and I am confident that the nation can solve these problems. But we must go far beyond the federal budget in terms of the national resources that America applies to her problems.

We must aggressively form strong partnerships between all levels of government and voluntary organization, business corporations and individuals. It's called lending a hand, mending a wound, and helping the less fortunate. Every institution has a moral responsibility for the progress of the nation.

My friends, next week Barbara and I begin a journey to enrich that world--a journey that will carry us to the far reaches of the Pacific Basin. We go to attend the funeral of Emperor Hirohito; to consult with the leaders of many of America's allies and friends; and to visit the China and the

Republic of Korea. My visit to China is a sentimental journey to country where I served as America's representative.

Several days ago, preparing for our trip, I came across these words of an old Chinese proverb: "One generation plants the seeds...another gets the shade."

Think of the investments we make in our future as America's seeds. We can lift hearts, change lives, and shape the 1990s.

That's a tall order. But it has been the American Story for two hundred years. Let's write it together.

Thank you, God bless you, and God bless America.

Since then, Congress and we have been engaged in budget negotiations. We are making progress, and I've invited Congressional leaders of both parties to another meeting to ensure more progress will be made. The ball is now in Congress' court. Let us work together to make the budget process work.

And as we chart that destiny--healing, building, and goaded
 always by a desire to do better--let us proclaim our true calling
 as a Nation:

"To anticipate charity by preventing poverty; assist the
 reduced fellowman...so that he can earn an honest livelihood.
 This," said the 12th-Century Jewish philosopher Moses Ben Maimon,
 or Maimonides (My-MON-i-deez), "is the highest step and the
 summit of charity's golden ladder."

~~My Friends, is that a tall order? You bet it is--what~~
~~Doubting Thomases might term Mission Impossible. But, then, let~~
~~me remind you: We are Americans--pilgrims from every corner of~~
~~the globe. And ours is the greatest, fairest, and tallest of~~
~~Nations--the acknowledged Master of Missions Fulfilled.~~

~~Thank you for your many kindnesses, and for the warmth of~~
~~this reception. Thank you for inviting me, good luck to each of~~
~~you, Godspeed to this university, and may God bless the United~~
~~States of America.~~

*But for Americans who care -- nothing
 is impossible,*

God bless & God bless America.

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FOR PRESIDENT BUSH
WASHINGTON UNIVERSITY
FEBRUARY 17, 1989

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--The home of ragtime, aerospace, and agriculture;

--The state whose native sons include Omar Bradley and Harry Truman and that master linguist, Yogi Berra;

--The State, moreover, whose citizens embody the best of America, and who know that the heart of America is good: working, serving others, hoping, and dreaming.

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One of the principle objectives of the office is to cause a substantially greater number of individual groups and institutions to more effectively serve their communities and the nation.

My friends, from now on in America any definition of a successful life must include serving others -- in the day-care center, in the corporate boardroom, at the Rotary, at Little League, or a tutoring program and in church.

Our new initiative will reflect that spirit, once called "America's genius for great and generous deeds." And I take special pride in the YES Program -- or Youth Entering Service -- which I proposed last fall to encourage American youth to give of themselves and to others in need. I am convinced that many national problems can be reduced by substantially increasing the involvement of young Americans in voluntary service. The establishment of the YES Foundation will help lead that effort.

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Accordingly, our budget does more, for instance, for the environment, more for the Space Program, and invests almost \$2.2 billion for the National Science Foundation to promote basic research. It increases funding for the Head Start Program, and allocates \$1 billion in additional outlays to stop the deadly scourge of drugs.

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Consider: We have proposed a new child care initiative, targeted at low-income families. We have restored and doubled the tax deduction for adopting special needs children. Even more, we have made education the Gateway Arch of the Bush Administration. For our pursuit of excellence is central to the future of America. And if excellence breeds achievement, then excellence must be rewarded--in grade school, in high school, and at the colleges and universities of America.

Last Thursday, I asked Congress to create a \$500-million program to reward America's best schools--"merit schools"--and to found special Presidential awards for the best teachers in every State. I urged expanded use of magnet schools--giving families and students a choice in education. And I proposed a new program to encourage "alternative certification" -- allowing qualified

and talented Americans from every field to teach in America's classrooms.

We must bring more of the best and brightest back to the teaching profession. And through a new program of National Science Scholars, we can inspire their students, too -- giving America's youth a special incentive to excel in science and mathematics. In short, I wish to achieve, nationally, what this university has done, historically: To make excellence in learning a national way of life.

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My friends, next week Barbara and I begin a journey to enrich that world--a journey that will carry us to the far reaches of the Pacific Basin. We go to attend the funeral of Emperor Hirohito; to consult with the leaders of many of America's allies and friends; and to visit the China and the

Republic of Korea. My visit to China is a sentimental journey to country where I served as America's representative.

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Suggested Remarks
for President Bush
George Washington University
February 17, 1989

→ Anyone else
worth mentioning?
Pres?
son?

Chancellor Danforth, Honored Guests, Ladies and Gentlemen, Friends. Thank you for that gracious introduction. And let me thank all of you for the privilege of sharing this occasion.

→ who?

That noted Missourian, Mark Twain, once wrote: "In Boston, they ask, 'How much does he know?' In Philadelphia, 'Who were his parents?' In New York, 'How much is he worth?'" Well, from my perspective, you couldn't put a price tag on this morning. Believe me, it is priceless, and my gratitude is boundless.

Secondly, let me say how pleased I am to be in one of America's most illustrious States:

--The home of tourism, aerospace, and rhythm 'n' blues;

--The site whose native sons include Omar Bradley and George Washington Carter and that master linguist, Lawrence Peter (Yogi) Berra;

--The State, moreover, whose citizens embody the best of America, and who know that the heart of America is good: Working, hoping, dreaming, helping people help themselves.

You know, ever since childhood I've been an avid baseball fan, and even now, I recall how the Cardinals' late, great Dizzy Dean said of his exploits as a pitcher: {"Podner, it ain't braggin' if you can back it up."}

My friends, we meet today at a college—George Washington University of St. Louis--which has, indeed, "backed it up."

Together, this community has built a pioneering school in science and mathematics. Your teaching and research are rivaled only by your basketball team. And soaring admission applications tell a story of Excellence Without Elitism, Main Street Values Without Facade. {Surely, no one will claim of this university

→ what is the pt here

what Yogi Berra did of a popular New York restaurant: "Nobody," he said, "goes there anymore. It's too crowded." }

As students and faculty, administrators and alumni, you have shown how volunteerism can enrich education, and how education can enrich America: I refer, of course, to such projects as the Special Olympics.

Together, you have shown that what matters--matters in the end--is not money gained, or professions conquered: instead, I refer to what really counts--the basic, the simple things--things like civility, kindness, self-sacrifice, compassion.

And, yes, together, you have echoed the lyrics of that noted GW alumnus, Broadway's David Merrick. To those left behind, you haven't said, "Stop the World-- I Want to Get off." Instead, you've cried, "I Do, I Do," to the elderly, disabled, and indigent. Your deeds have been heroic deeds, for you have sought a richer life of soul and spirit: To right wrong, to love justice, and to serve the gentler impulses of mankind.

Eight days ago, in a joint session before both houses of Congress, I proposed a budget to achieve these goals: To create a Nation where equality and opportunity co-exist, and where freedom can prevail.

Our budget seeks to curb the runaway growth of Federal spending, even as we provide more generously for the most vulnerable among us. It links social concern with fiscal sanity, and shows that government can feel in its heart what it knows in its head.

Our budget is responsive and responsible, and will ensure a strong and stable economy. It seeks to arrest government's maze of mindless regulations, even as we smash inflation in the teeth. It strives to put our financial house in order, and let me pledge again--how I love this part--No New Taxes.

Before government there was man, and government evolved to meet man's needs. That is why our budget features a flexible freeze: Those programs that work, we will increase funding; those that don't, we will tighten funding. Our

budget is fair: Fair to program recipients, even fairer to the tax-payers. It embodies two qualities which, like baseball, are always in season: The common sense that Justice Hand termed "the eventual supremacy of reason," and, yes, America's capacity to care.

As President, I believe that in the America of the 1990s, our challenges must be met by government and people together--or they cannot be met at all. But I also believe, as Bernard Baruch reminded us, that "Government is not a substitute for people, but simply the instrument through which they act."

Yes, I believe that we must reach beyond government, aiding our localities and assisting our neighbors. But I also believe that government can be a catalyst--that it alone, at times, can ensure that the powerless and the powerful have the equal right to be heard and understood.

That is why, for instance, my budget does more for the environment, more for the Space Program, and invests almost \$2.2 billion for the National Science Foundation to promote basic research. It increases funding for the Head Start Program, and allocates \$1 billion in outlays to stop the deadly scourge of drugs.

To Minority America, especially historically Black colleges, this budget says: "More than affirmative action, Americans want affirmative lives." To the homeless, this budget targets \$1 billion, saying: "We want a Nation where no one is left out." To our elderly, this budget pledges: "Your final years can be your finest years." And to our Nation's youth, this budget says: "The promise of tomorrow lies in the children of today."

Consider: We have proposed a new child care initiative, targeted at low-income families. We have restored and doubled the tax deduction for adopting special needs children. Even more, we have made education the Gateway Arch of the Bush Administration. For a decent education is the first civil right of every American. Our pursuit of excellence is central to the future of America. And if

excellence breeds achievement, then excellence must be rewarded—in grade-school, in high-school, and, yes, at the universities of America.

Last Thursday, I asked Congress to create a \$500-million program to reward America's best schools—"merit schools"—and to found special Presidential awards for the best teachers in every State.

Now, as then, I urge expanded use of magnet schools—giving families and students the luxury of choice—and a new program to encourage "alternative certification"—allowing learned Americans from every field to teach in America's classrooms.

And through a new program of National Science Scholars, I seek to inspire America's ministry of talent, and to give America's youth a special incentive to excel in science and mathematics: In short, I seek to achieve, nationally, what this university has done, historically—to make excellence a way of life, and higher learning a bequest.

What about urging the young to become teachers?

Education can ennoble the American Story. So, too, can the budget I unveiled last week.

Because of economic growth, tax revenues will rise; by our projections, the Federal government will gain an extra \$80 billion. There are some who want to spend this money on (Barnum & Bailey) ^{No?!} circuses. I say no. I say: Use those revenues, as our budget does, to reduce the Federal deficit by \$76 billion. That way, we will spend enough to protect our national security—at home, we will spend enough to do the job—without resorting to a tax increase. For "Tax and Spend" has gone the way of (Sally Rand) and silent movies. And we have surpassed—long surpassed—the limits of what government alone can do.

You know what I'm getting at. You know what I'm asking for, today. It's termed volunteerism, or partnerships between all levels of government, private enterprise, and voluntary organizations. It's called lending a hand,

mending a wound, and helping the less fortunate. Voluntary service can be as universal as self-respect, and as honorable as education. Moreover, it can make America both great and good: At home, to aid those who only ask for dignity; abroad, to summon God's help--and your's--not merely for peace in our time, but for peace among men; deep down, inside, with regard for other's sensibilities.

Volunteerism can be government's helpmate. Each, alone, is potent but inadequate; both, combined, exceed the sum of their parts. Together, the public and private sectors can join hands for the good of America, and help overlap the gates of poverty and despair. It is a dream--my dream; I ask that it be yours--based more on human talent than Federal largess; more on local initiative than on the Federal bureaucracy; resting less on promises and politicians than on our most enduring treasure: The inalienable power of the human spirit.

My friends, the definition of a successful life must include serving others--in the day-care center, a Masonic Lodge, at Little League, in church.

That is why I have opened the Office of National Service, which will lead my Administration's community and national service programs. It is why I will build upon the Private Sector Initiatives begun by President Reagan, and why I salute your efforts, reflecting that spirit, which bespeak what Pope Pius XII called {"America's genius for great and generous deeds." } But most of all, it is why--because volunteerism works--that I will foster, as chairman and as evangelist, the YES--or Youth Entering Service--to America Foundation which I proposed last fall.

Here, through YES to America, Americans of junior- and senior-high-school age can, personally, give of, not to, themselves. Here, they can

^ may offer

combat such problems as illiteracy and drug abuse. Here, they can make a difference—not merely in their lives, but also in their Nation's. Here, they can have a voice—and make sure that voice is heard.

I urge you to uphold that voice—to say "Yes" to Yes to America. I ask you to create a better and moral society for all. At home, let us build bridges of trust and harmony. And, abroad, let us build bridges of peace.

My friends, next week Barbara and I begin a journey for peace—a journey that will carry us to the far reaches of the Pacific Basin. We go to attend the funeral of Emperor Hirohito; to consult many of America's most abiding allies; and to visit a country I served as our Ambassador: A land of myth, romance, and lyric poetry—the People's Republic of China.

Several days ago, preparing for that trip, I came across these words of two old Chinese proverbs.

The first proverb said, "When you drink from the stream, remember the spring." My fellow citizens, let the stream be your lives, doing good things on behalf of others. And let the spring be education, exalting America's quality of life.

The second proverb observed that "One generation plants the seeds... another gets the shade." My friends, think of voluntary service as America's seeds. It can lift hearts, change lives, and shape the 1990s.

Let us understand that government is but a custodian of America's future—but that you—the people—you are her trustees.

Let us observe that we are all children of the same humane and loving God, and that our destiny is not divisible.

And as we chart that destiny—together, united, and goaded always by a desire to do better—let us proclaim our true calling as a Nation:

"To anticipate charity by preventing poverty; assist the reduced fellowman...so that he can earn an honest livelihood. This," said the 12th-Century philosopher Moses Ben Maimon, or Maimonides (Mi-MON-i-deez), "is the highest step and the summit of charity's golden ladder."

My friends, is that a tall order? You bet it is--what Doubting Thomases might term "Mission Impossible". But, then, let me remind you: We are Americans--pilgrims from every corner of the globe. And ours is the greatest, fairest, and tallest of Nations--the acknowledged Master of Missions Fulfilled.

Thank you for your many kindnesses, and for the warmth of this reception. Thank you for inviting me, good luck to each of you, Godspeed to this University, and may God bless the United States of America.

Office Of
Public Relations

February 10, 1989

THE PRESIDENTIAL ADVANCE TEAM

Washington University Visit February 12, 1989

Office of Presidential Advance

Judd Swift, Deputy Director of Presidential Advance
202-456-7565 (office)
202-395-2000 (White House signal)
202-395-4031 or 4032 (FAX)

Gary Fendler, Deputy Director of Presidential Press Advance

Kathy Kamionek, Trip Coordinator
202-456-7565
202-234-7519 (home)

Edward Cowling, Lead Advanceman (remains in St. Louis, Mo.)

United States Secret Service

Lewis Merletti, Assistant Special Agent in Charge

Tom Locke	- Lead	(remains in St. Louis, Mo.)
Charles Briscoe	- Site	(remains in St. Louis, Mo.)
Kenneth Donahue	- ID	(remains in St. Louis, Mo.)
Robert Teter	- TSD	(remains in St. Louis, Mo.)
Dennis Lindsay	- TS	(remains in St. Louis, Mo.)

Office of Political Affairs

Terry Carmack, Associate Director for the Great Lakes Region

Office of National Service

Peggy Swift, National Service, Staff Assistant
202-456-6266

White House Military Office

Lieutenant Commander Woody Lee, Coast Guard Aide to the President

Major Greg Miller, Air Force One Advance

Major William Mullens, HMX Advance

Major Greg Thomas, Air Force One Advance - (remains in St. Louis, Mo.)

White House Communications Agency

LTC Chris Adams, Deputy Operations Officer

Major John Thompson, Trip Officer - (remains in St. Louis, Mo.)

SFC Richard Starr, Operations NCO - (remains in St. Louis, Mo.)

CW3 Jerry Jensen, Assistant Trip Officer - (remains in St. Louis, Mo.)

SSG Mark Bakke, Data Technician - (remains in St. Louis, Mo.)

WASHINGTON UNIVERSITY ADMINISTRATION

Presidential Advance Meeting

Athletic Complex

February 12, 1989, 11:30 a.m.

William Danforth, Chancellor - 889-5100

John Berg, Assistant to the Chancellor - 889-5127 (Home 862-0059)

David Blasingame, Associate Vice Chancellor, Alumni & Development - 889-5277

Joe F. Evans, Associate Vice Chancellor, Business Affairs - 889-5678

* M. Fredric Volkmann, Associate Vice Chancellor, Public Relations - 889-5261
(Home 721-3703)

Harry E. Kisker, Vice Provost and Dean of Student Affairs - 889-5040

Carol Farnsworth, Associate Director of Public Relations - 889-5408

Karen L. Coburn, Associate Dean for Student Development - 889-5040

John Schael, Director of Athletics - 889-5288 (Home 997-3648)

Norman Schneider, Director of the Campus Police - 889-5555

Al Toroian, Director of News & Information - 889-5215 (Home 849-1339)

Herb Weitman, Director of Photographic Services - 889-5244

Phil Godfrey, Assistant Director of Athletics - 889-4708 (Home 968-5527)

Fran Hooker, News Editor - 889-5202

Lorie Vanchena, Assistant Director of Project Development - 889-4620

Bob Day, Transportation Department - 889-5629 (Home 826-5317)

* Washington University's primary contact person for meeting.

is all its own; tension is anathema. "Not too hard, not too easy," Stengel frequently exhorted his troops. For six months baseball is played almost every day; any person who tried to stay emotionally primed for each game would go mad, or to the minors, whichever came first. Baseball comedians are as necessary as they are renowned.

And what a comedian was Ol' Diz. His character was ideally suited for baseball, and baseball's character helped him become what Curt Gowdy labeled an "American legend." By nature, Dean was suitably carefree to survive the ups and downs, the streaks and slumps, the lengthy pauses between times at bat or pitching starts. Clever, amusing, folksy and loose, Dean adopted and cradled the baseball mentality as his own.

Dean was one of a select group of baseball players whose reputation did not exceed their actual worth. The stark fact is that Yogi Berra, for all his malaprops and supposed warmth, was never much more than a mundane wit, his humor largely molded by Joe Garagiola. Satchel Paige was much less the folk philosopher than the illiterate pitcher who happened upon an adoring press. And Bo Belinsky, Hollywood-made and manufactured, saw his fawning public desert him even before his left arm did.

Unlike Bo and Satchel, Dean's image was largely self-formed. Totally extroverted, supremely confident of his role in life and ability to prevail, Dean delighted in the hurrahs which came his way—and ushered them to his door. America loved him for his outrageous and artless behavior, qualities which shielded the mind that made him exceedingly comfortable in succeeding years. Like Joe Namath and Denny McLain forty years later, the Dean of the early 1930s made public turmoil his means of capturing America's heart, or at least its rapt notice.

The gambler image affected them all. Namath guaranteed that he would win the 1969 Super Bowl, then did. McLain made a brief but tumultuous career of conning the public and himself. Dean won at cards, at golf, at baseball and pranks. "It ain't bragging if you can back it up," he was fond of saying, and for decades his life mirrored that phrase. Despite his riverboat style, though, Dean's manner was also marked by the rustic, almost innocent demeanor Diz recurrently displayed.

Fiction, critics said, often outlasted fact with Dizzy Dean. One reason why, of course, was that he seldom turned the other cheek when a chance for tall tales appeared. One incident speaks volumes about Dean's conquering ways with newsmen, as well as the idolatrous treatment sports figures then received from the nation's press. The episode revolved around conflicting reports that raged in baseball circles about Dean's enduring propensity for self-serving, headline-seeking oratory.

Not long into the 1934 season, Dean rode the rails to Brooklyn, where the Cardinals met the Dodgers in sainted Ebbets Field. On Diz's first day in New York, three writers visited Dean in search of a story. As he eventually told Roy Stockton of the *St. Louis Post-Dispatch*,

Offical 930
in the Republic of China
Hon. Chief of US Liaison Office

Suggested Remarks
for President Bush
George Washington University
February 17, 1989

→ Anyone else
worth mentioning?
Bes?
Sen?

Chancellor Danforth, Honored Guests, Ladies and Gentlemen, Friends. Thank you for that gracious introduction. And let me thank all of you for the privilege of sharing this occasion.

That noted Missourian, Mark Twain, once wrote: "In Boston, they ask, 'How much does he know?' In Philadelphia, 'Who were his parents?' In New York, 'How much is he worth?'" Well, from my perspective, you couldn't put a price tag on this morning. Believe me, it is priceless, and my gratitude is boundless.

Secondly, let me say how pleased I am to be in one of America's most illustrious States:

--The home of tourism, aerospace, and rhythm 'n' blues;

--The site whose native sons include Omar Bradley and George Washington Carter and that master linguist, Lawrence Peter (Yogi) Berra;

--The State, moreover, whose citizens embody the best of America, and who know that the heart of America is good: Working, hoping, dreaming, helping people help themselves.

You know, ever since childhood I've been an avid baseball fan, and even now, I recall how the Cardinals' late, great Dizzy Dean said of his exploits as a pitcher: "Podner, it ain't braggin' if you can back it up."

My friends, we meet today at a college--George Washington University of St. Louis--which has, indeed, "backed it up."

Together, this community has built a pioneering school in science and mathematics. Your teaching and research are rivaled only by your basketball team. And soaring admission applications tell a story of Excellence Without Elitism, Main Street Values Without Facade. Surely, no one will claim of this university

what Yogi Berra did of a popular New York restaurant: "Nobody," he said, "goes there anymore. It's too crowded."

As students and faculty, administrators and alumni, you have shown how volunteerism can enrich education, and how education can enrich America: I refer, of course, to such projects as the Special Olympics.

Together, you have shown that what matters--matters in the end--is not money gained, or professions conquered: instead, I refer to what really counts--the basic, the simple things--things like civility, kindness, self-sacrifice, compassion.

And, yes, together, you have echoed the lyrics of that noted GW alumnus, Broadway's David Merrick. To those left behind, you haven't said, "Stop the World--I Want to Get off." Instead, you've cried, "I Do, I Do," to the elderly, disabled, and indigent. Your deeds have been heroic deeds, for you have sought a richer life of soul and spirit: To right wrong, to love justice, and to serve the gentler impulses of mankind.

Eight days ago, in a joint session before both houses of Congress, I proposed a budget to achieve these goals: To create a Nation where equality and opportunity co-exist, and where freedom can prevail.

Our budget seeks to curb the runaway growth of Federal spending, even as we provide more generously for the most vulnerable among us. It links social concern with fiscal sanity, and shows that government can feel in its heart what it knows in its head.

Our budget is responsive and responsible, and will ensure a strong and stable economy. It seeks to arrest government's maze of mindless regulations, even as we smash inflation in the teeth. It strives to put our financial house in order, and let me pledge again--how I love this part--No New Taxes.

Before government there was man, and government evolved to meet man's needs. That is why our budget features a flexible freeze: Those programs that work, we will increase funding; those that don't, we will tighten funding. Our

budget is fair: Fair to program recipients, even fairer to the tax-payers. It embodies two qualities which, like baseball, are always in season: The common sense that Justice Hand termed "the eventual supremacy of reason," and, yes, America's capacity to care.

As President, I believe that in the America of the 1990s, our challenges must be met by government and people together--or they cannot be met at all. But I also believe, as Bernard Baruch reminded us, that "Government is not a substitute for people, but simply the instrument through which they act."

Yes, I believe that we must reach beyond government, aiding our localities and assisting our neighbors. But I also believe that government can be a catalyst--that it alone, at times, can ensure that the powerless and the powerful have the equal right to be heard and understood.

That is why, for instance, my budget does more for the environment, more for the Space Program, and invests almost \$2.2 billion for the National Science Foundation to promote basic research. It increases funding for the Head Start Program, and allocates \$1 billion in outlays to stop the deadly scourge of drugs.

To Minority America, especially historically Black colleges, this budget says: "More than affirmative action, Americans want affirmative lives." To the homeless, this budget targets \$1 billion, saying: "We want a Nation where no one is left out." To our elderly, this budget pledges: "Your final years can be your finest years." And to our Nation's youth, this budget says: "The promise of tomorrow lies in the children of today."

Consider: We have proposed a new child care initiative, targeted at low-income families. We have restored and doubled the tax deduction for adopting special needs children. Even more, we have made education the Gateway Arch of the Bush Administration. For a decent education is the first civil right of every American. Our pursuit of excellence is central to the future of America. And if

excellence breeds achievement, then excellence must be rewarded--in grade-school, in high-school, and, yes, at the universities of America.

Last Thursday, I asked Congress to create a \$500-million program to reward America's best schools--"merit schools"--and to found special Presidential awards for the best teachers in every State.

Now, as then, I urge expanded use of magnet schools--giving families and students the luxury of choice--and a new program to encourage "alternative certification"--allowing learned Americans from every field to teach in America's classrooms.

And through a new program of National Science Scholars, I seek to inspire America's ministry of talent, and to give America's youth a special incentive to excel in science and mathematics: In short, I seek to achieve, nationally, what this university has done, historically--to make excellence a way of life, and higher learning a bequest.

Education can ennoble the American Story. So, too, can the budget I unveiled last week.

Because of economic growth, tax revenues will rise; by our projections, the Federal government will gain an extra \$80 billion. There are some who want to spend this money on Barnum & Bailey circuses. I say no. I say: Use those revenues, as our budget does, to reduce the Federal deficit by \$76 billion. That way, we will spend enough to protect our national security--at home, we will spend enough to do the job--without resorting to a tax increase. For "Tax and Spend" has gone the way of Sally Rand and silent movies. And we have surpassed--long surpassed--the limits of what government alone can do.

You know what I'm getting at. You know what I'm asking for, today. It's termed volunteerism, or partnerships between all levels of government, private enterprise, and voluntary organizations. It's called lending a hand,

mending a wound, and helping the less fortunate. Voluntary service can be as universal as self-respect, and as honorable as education. Moreover, it can make America both great and good: At home, to aid those who only ask for dignity; abroad, to summon God's help--and your's--not merely for peace in our time, but for peace among men; deep down, inside, with regard for other's sensibilities.

Volunteerism can be government's helpmate. Each, alone, is potent but inadequate; both, combined, exceed the sum of their parts. Together, the public and private sectors can join hands for the good of America, and help overlap the gates of poverty and despair. It is a dream--my dream; I ask that it be yours--based more on human talent than Federal largess; more on local initiative than on the Federal bureaucracy; resting less on promises and politicians than on our most enduring treasure: The inalienable power of the human spirit.

My friends, the definition of a successful life must include serving others--in the day-care center, a Masonic Lodge, at Little League, in church.

That is why I have opened the Office of National Service, which will lead my Administration's community and national service programs. It is why I will build upon the Private Sector Initiatives begun by President Reagan, and why I salute your efforts, reflecting that spirit, which bespeak what Pope Pius XII called "America's genius for great and generous deeds." But most of all, it is why--because volunteerism works--that I will foster, as chairman and as evangelist, the YES--or Youth Entering Service--to America Foundation which I proposed last fall.

Here, through YES to America, Americans of junior- and senior-high-school age can, personally, give of, not to, themselves. Here, they can

combat such problems as illiteracy and drug abuse. Here, they can make a difference--not merely in their lives, but also in their Nation's. Here, they can have a voice--and make sure that voice is heard.

I urge you to uphold that voice--to say "Yes" to Yes to America. I ask you to create a better and moral society for all. At home, let us build bridges of trust and harmony. And, abroad, let us build bridges of peace.

My friends, next week Barbara and I begin a journey for peace--a journey that will carry us to the far reaches of the Pacific Basin. We go to attend the funeral of Emperor Hirohito; to consult many of America's most abiding allies; and to visit a country I served as our Ambassador: A land of myth, romance, and lyric poetry--the People's Republic of China.

Several days ago, preparing for that trip, I came across these words of two old Chinese proverbs.

The first proverb said, "When you drink from the stream, remember the spring." My fellow citizens, let the stream be your lives, doing good things on behalf of others. And let the spring be education, exalting America's quality of life.

The second proverb observed that "One generation plants the seeds... another gets the shade." My friends, think of voluntary service as America's seeds. It can lift hearts, change lives, and shape the 1990s.

Let us understand that government is but a custodian of America's future--but that you--the people--you are her trustees.

Let us observe that we are all children of the same humane and loving God, and that our destiny is not divisible.

And as we chart that destiny--together, united, and goaded always by a desire to do better--let us proclaim our true calling as a Nation:

"To anticipate charity by preventing poverty; assist the reduced fellowman...so that he can earn an honest livelihood. This," said the 12th-Century philosopher Moses Ben Maimon, or Maimonides (Mi-MON-i-deez), "is the highest step and the summit of charity's golden ladder."

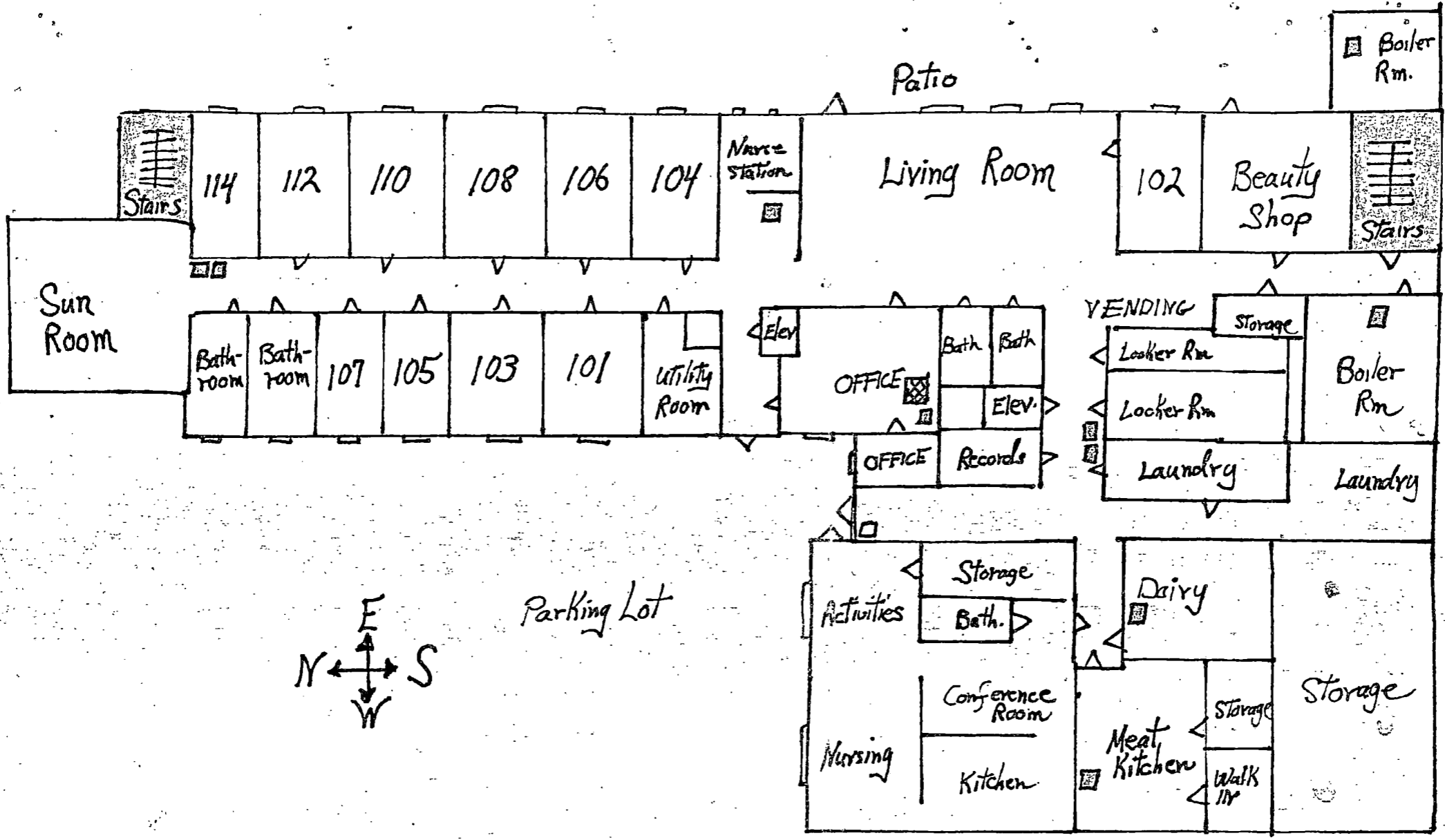
My friends, is that a tall order? You bet it is--what Doubting Thomases might term Mission Impossible. But, then, let me remind you: We are Americans--pilgrims from every corner of the globe. And ours is the greatest, fairest, and tallest of Nations--the acknowledged Master of Missions Fulfilled.

Thank you for your many kindnesses, and for the warmth of this reception. Thank you for inviting me, good luck to each of you, Godspeed to this University, and may God bless the United States of America.

1.) Jacob M. Braude's Complete Speakers' & Toastmasters Library... Prentice Hall,
8 volumes, 1965

2.) Jacob M. Braude's Treasury of Wit & Humor, Prentice-Hall, 1964

Vernon Ave.







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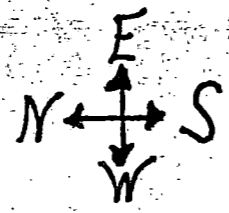
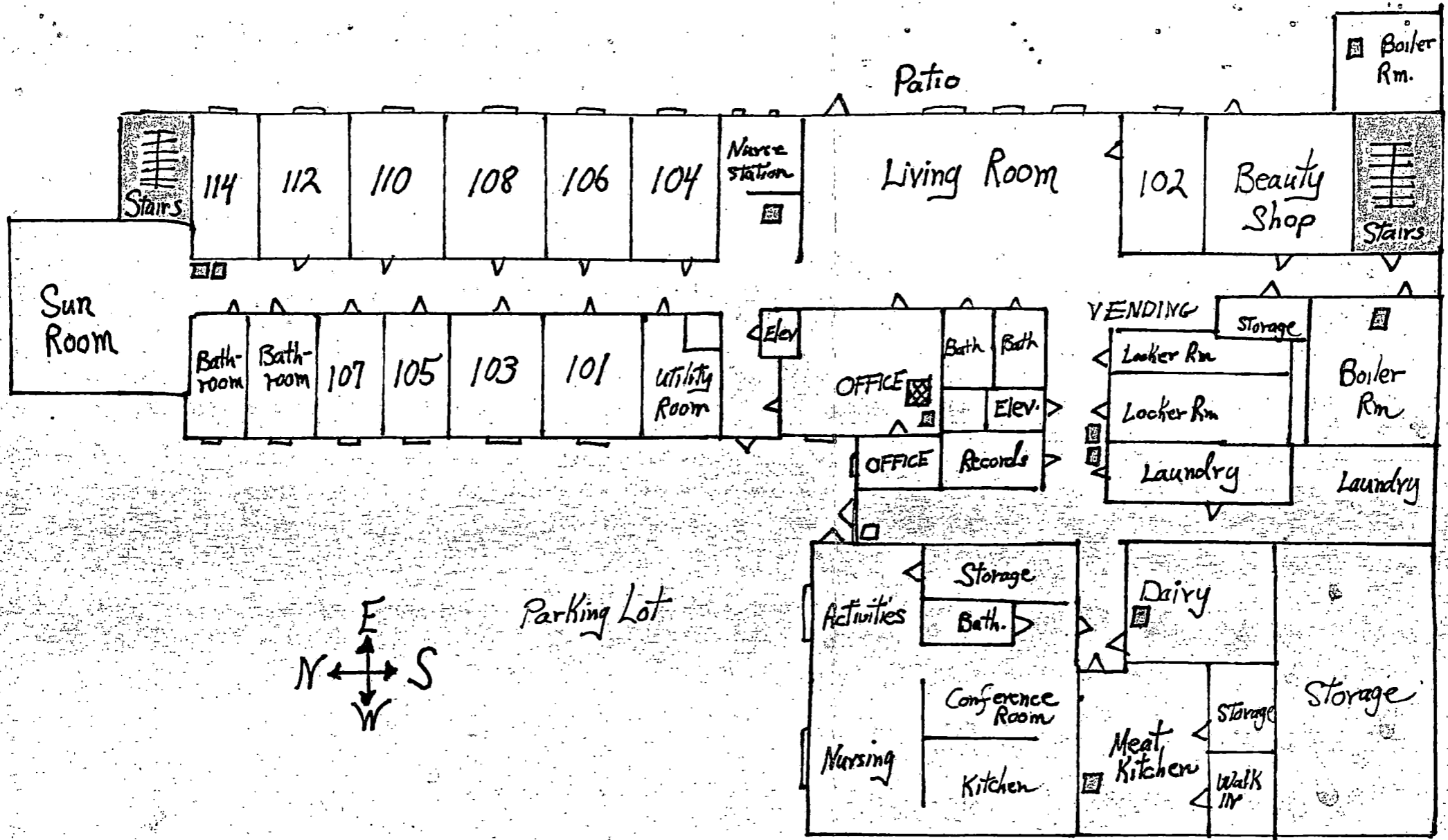
Leland Av

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Color Code

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-  EXTINGUISHERS
-  PULL STATION
-  MASTER BOARD

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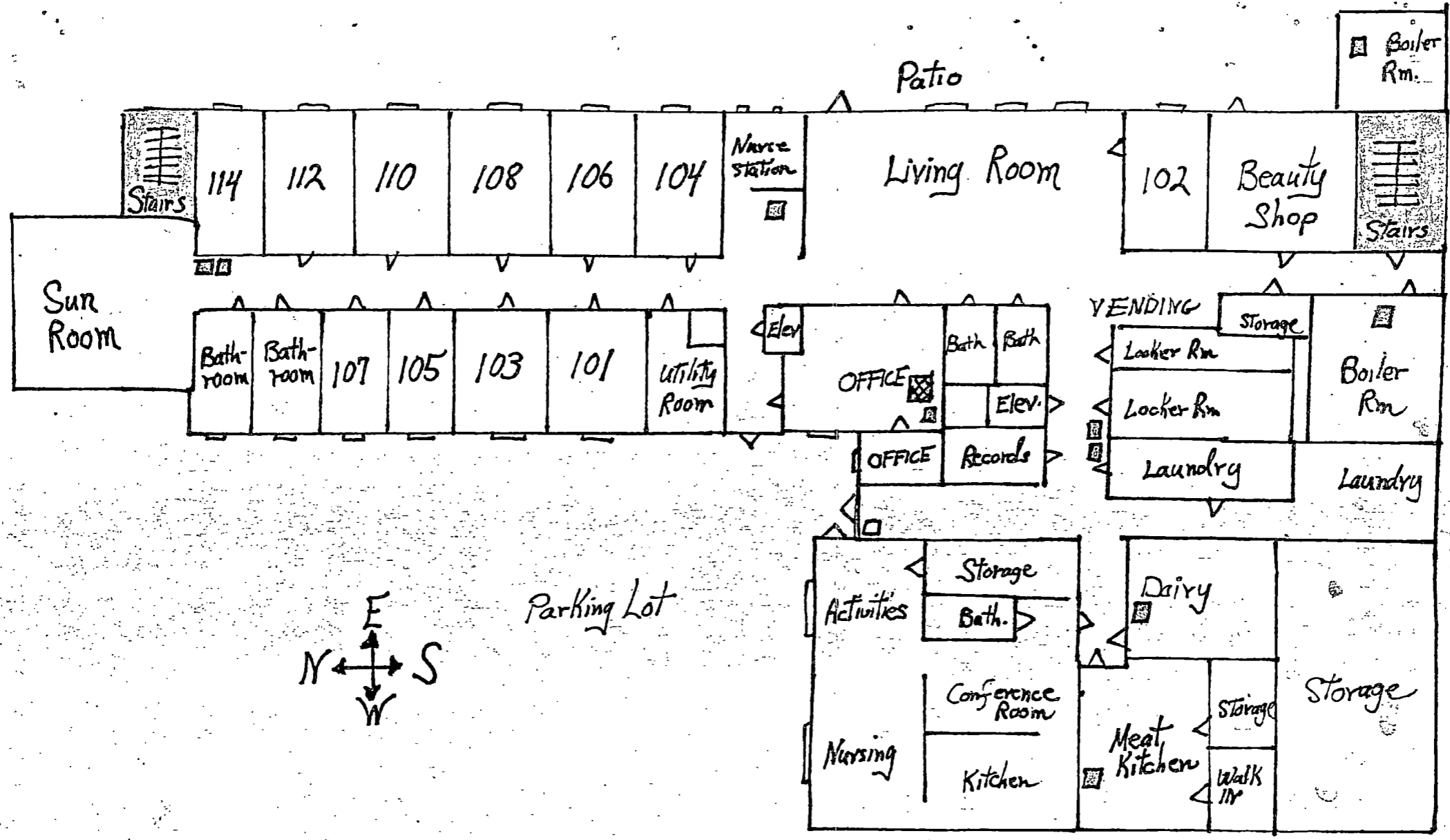
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Washington

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BULLETIN OF WASHINGTON UNIVERSITY

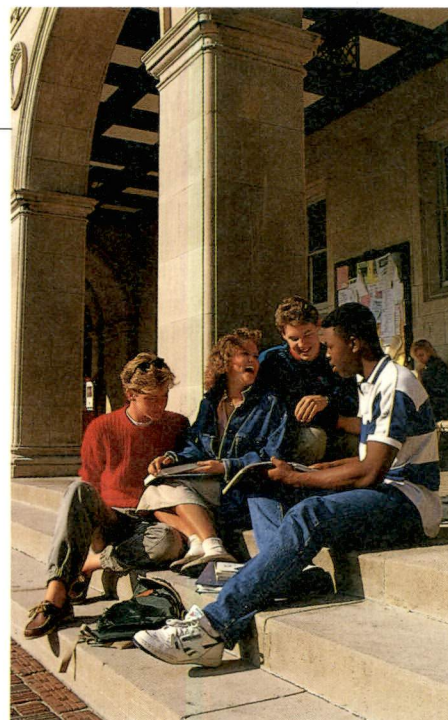
ARTS & SCIENCES □ ARCHITECTURE
BUSINESS □ ENGINEERING □ FINE ARTS



Washington University

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BULLETIN OF WASHINGTON UNIVERSITY
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*On the cover: Brookings Hall from Brookings Drive;
Left: Brookings Hall arch from the Quadrangle*

Close-up: Washington University

THE UNIVERSITY

- An independent, medium-sized university.
- A nondenominational community of scholars founded in 1853.
- Five Schools offering undergraduate programs.
- 80 major areas of concentration and more than 1,400 courses.
- Traditional and interdisciplinary majors, with opportunities for minor concentrations and individualized programs.

THE CAMPUS

- 169-acre Hilltop Campus with predominantly collegiate Gothic architecture in its academic buildings.
- 59-acre Medical Campus in the Central West End district.
- 14 residence halls, built after 1960; singles, doubles, and suites.

THE ENVIRONMENT

- The Hilltop Campus is situated just west of Forest Park, one of the largest municipal parks in America. It is bounded on the other three sides by the suburban communities of Clayton and University City.
- Forest Park is home to the St. Louis Zoo, the St. Louis Art Museum, and the MUNY (Municipal Opera—a summer theater). It features biking and jogging trails, a skating rink, racquetball and handball courts, and many other recreational opportunities.
- Seven miles away is the St. Louis riverfront and the restored area of Laclede's Landing with shops and restaurants; across Forest Park from campus is the Central West End district with cafés and shops.
- Cultural opportunities include the St. Louis Symphony Orchestra, the Opera Theatre of St. Louis, and the Repertory Theatre.
- St. Louis is the home of the baseball Cardinals and the hockey Blues.
- A few hours' drive from campus are the Ozark Mountains, with canoeing streams and hiking trails.

THE FACULTY

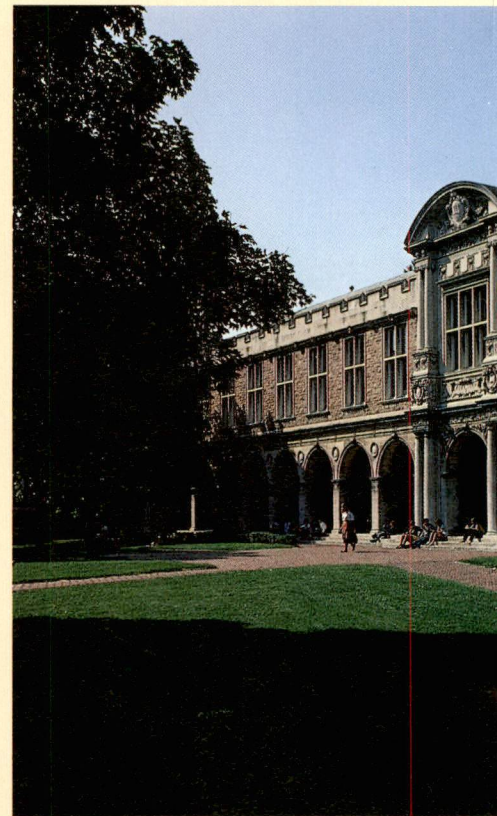
- 1,482 full-time faculty.
- Virtually all full-time teaching faculty hold the doctorate or final professional degree in their fields. Almost all faculty members engage in research or creative activity.
- Professors usually teach both undergraduate and graduate courses.
- 18 Nobel laureates have been associated with Washington University.
- 33 faculty are members of the National Academy of Sciences or its Institute of Medicine.
- 16 are members of the American Academy of Arts and Sciences.
- The faculty includes the 1988-89 Poet Laureate of the United States and winners of the Pulitzer Prize, National Book Critics Circle Award, National Medal of Science, National Medal of Arts, Roethke Award, Guggenheim, Rockefeller, and Longview Foundation awards, *Paris Review* Humor Award, and Bollingen Prize for poetry.
- More than 250 are editors of professional and scholarly journals.

THE STUDENTS

- 4,700 undergraduates are drawn from all 50 states and many foreign countries.
- About 85 percent come from outside the St. Louis area.
- 50 percent of the incoming freshmen are men; 50 percent are women; 16 percent are minorities.
- 70 percent of the freshmen rank in the top 10 percent of their high school classes.
- Freshman SAT averages are 572 in verbal, 646 in math; ACT composite average is 28.
- Student-to-faculty ratio is 14:1.

RESOURCES

- 14 libraries, with the Asian Studies and modern poetry collections among the largest in the country.
- More than 2 million volumes, 1.5 million microforms, 16,000 serials including periodicals, and 8 million manuscript items.
- The Computing Facilities' 5 large computing systems support more than 1,000 terminals, 15 service locations,



Ridgley Hall

and numerous microcomputer systems. Computer centers are housed in the residence halls and in classroom buildings. A facility in the Engineering School is open 24 hours a day.

- The Washington University Gallery of Art is one of America's finest. The collection ranges from El Greco to Max Ernst, from Joshua Reynolds to Robert Rauschenberg, and includes 25 Picassos.
- Edison Theatre in Mallinckrodt Center presents performances by professional drama, music, and dance companies as well as student and faculty productions.
- Graduate and professional programs in law, social work, medicine, physical therapy, and dental medicine, as well as in arts and sciences, architecture, business, engineering, and fine arts, enrich the undergraduate programs.

STUDENT ACTIVITIES

- The student governing body: Student Union.
- More than 200 clubs and activities, including a twice-weekly newspaper and a yearbook, an FM radio station, com-



community service groups, performing arts opportunities, and fraternities and sororities.

- The Office of Student Affairs helps students plan social, cultural, and recreational functions and provides guidance for student activities and organizations.

RESIDENTIAL LIFE

- 14 modern residence halls; singles, doubles, and suites available.
- Four on-campus apartment buildings for upperclassmen.
- Flexible meal plans.
- Residence halls governing body: Congress of the South Forty.

ATHLETICS

- Washington competes in the University Athletic Association (UAA), made up of 9 leading private universities: Brandeis, Carnegie Mellon, Case Western Reserve, Chicago, Emory, Johns Hopkins, New York, Rochester, and Washington.
- 9 intercollegiate men's sports: baseball, basketball, cross country, football, golf, soccer, swimming/diving, tennis, and track.

- 6 intercollegiate women's sports: basketball, cross country, swimming/diving, tennis, track, and volleyball.
- Intramural sports bring several thousand students, faculty, and staff members into organized competition each year.
- Club sports are available . . . popular ones include crew, lacrosse, women's soccer, and ice hockey.
- Facilities include gymnasiums, playing fields, a track, racquetball and squash courts, two weight rooms, tennis courts, and a swimming pool. A state-of-the-art athletic facility was completed in 1985.

FINANCIAL AID

- Aid based on financial need and on academic achievement is available.
- More than 50 percent of all undergraduates receive aid in a combination of grants, scholarships, long-term low-interest loans, and campus employment.
- A Cost Stabilization Plan enables parents to stabilize tuition, room, and board costs at the freshman year's rates.

UNDERGRADUATE PROGRAMS OF STUDY

College of Arts & Sciences (2,550 students)

African and Afro-American Studies	Economics
Anthropology	Education
Arabic	English
Archaeology	French
Art History	German
Asian Studies	Greek
Biochemistry	History
Biology	International Development
Chemistry	Italian
Chinese	Japanese
Classics	Jewish and Near Eastern Studies
Comparative Literature	Latin
Dance	Latin American Studies
Drama	Linguistic Studies
Earth and Planetary Sciences	Literature and History
	Mathematics
	Medieval and Renaissance Studies

Music	Russian
Philosophy	Sociology
Physics	Spanish
Political Economy	Western European Studies
Political Science	Women's Studies
Psychology	
Religious Studies	

School of Architecture (200 students)

Architecture

John M. Olin School of Business (550 students)

Business

School of Engineering & Applied Science (1,000 students)

Chemical Engineering
Civil Engineering
Computer Engineering
Computer Science
Electrical Engineering
Energy Engineering and Policy
Engineering and Public Policy
Environmental Resources
Mechanical Engineering
Physics
Process Control Systems
Systems Science and Engineering

School of Fine Arts (280 students)

Ceramics (clay or glass)
Fashion Design
Graphic Communications (graphic design, advertising design, or illustration)
Metalsmithing
Multi-Media
Painting
Photography
Printmaking
Sculpture

School of Medicine (junior-level transfer admission)

Occupational Therapy



Opportunities at Washington University

Washington University is a medium-sized institution of nearly 1,500 faculty and 4,700 undergraduates, which has been dedicated to providing its students with excellence in education since its founding more than 135 years ago. Today, from all over the country and all over the world, students come to St. Louis to pursue demanding studies in a friendly atmosphere. They come, confident that they:

- **may choose from among 1,400 courses in 80 excellent majors,**
- **will study with a distinguished faculty dedicated to teaching,**
- **will experience the exceptional diversity of the student body,**
- **will be prepared for admission to prestigious graduate schools or for direct entry into successful careers.**

STUDIES: A WEALTH OF CHOICE

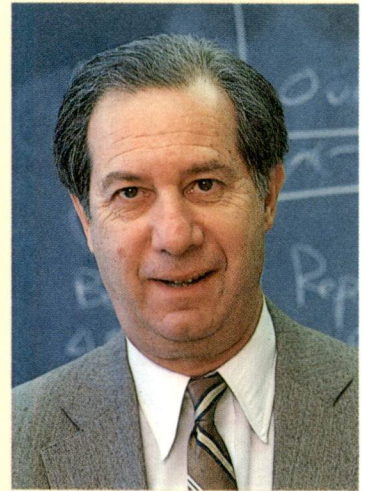
Students have abundant choices in the excellent programs in each of Washington's five undergraduate schools. The College of Arts and Sciences, the School of Architecture, the John M. Olin School of Business, the School of Engineering and Applied Science, and the School of Fine Arts together offer 80 different major, professional, or interdisciplinary concentrations and 1,400 courses each year.

Beyond the choices Washington students have within the school in which they are enrolled, they can register in courses in our other undergraduate schools. An engineering student might attempt a drawing class at the School of Fine Arts, a history student might want to study management in the business school, an architecture student may sign up for a German language course. If in the process of this experimenting, students discover a new talent or affinity, they may choose to major in one school and minor in another. A few will even transfer schools, always confident that the Washington University tradition of excellence applies to all undergraduate programs.

Some of our students have decided upon careers at the outset and are attracted to a specific academic program. They know the education they receive at Washington will prepare them for the professional world in which they will compete. But many students come to Washington, enticed by the wealth of studies, taught by concerned faculty. They find the freedom to tackle new courses and disciplines exhilarating, challenging, and rewarding.

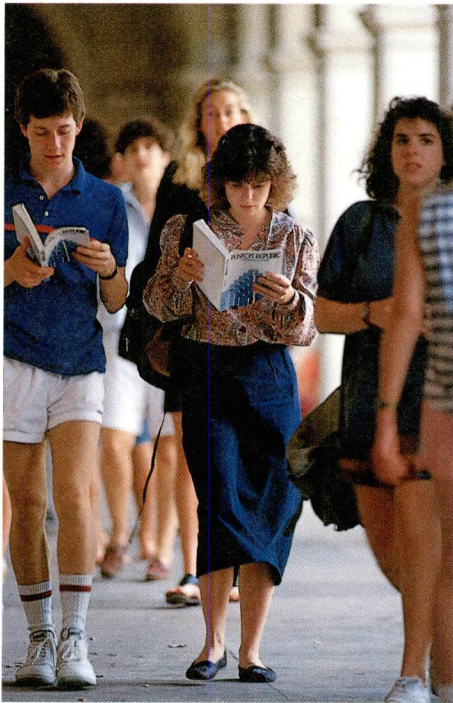
A FACULTY DEDICATED TO TEACHING AND THE STUDENTS THEY TEACH

Students are challenged by our top-notch faculty and relish the give and take possible in our many small classes. We have nearly 1,500 full-time faculty to teach 4,700 undergraduate and 4,000 graduate and professional students, a ratio that permits three-fourths of our classes to enroll fewer than 20 students. This majority of small classes results in a close student/teacher relationship more likely in a small college than in a university. The faculty knows that learning is a gradual process, a joint undertaking of teacher and student, not confined to three or four hours a week within classroom walls. Discussions begun in class continue in the quadrangle or the library or the student union.



In the classes I teach, I pour in the latest results. That means that the students are getting, typically, materials that will appear in textbooks a couple of years from now. That makes for a much more exciting class than if you're just expounding the existing corpus of knowledge.

*Murray Weidenbaum,
President Ronald
Reagan's first Chairman
of the Council of Eco-
nomic Advisors and
Edward Mallinckrodt
Distinguished University
Professor*



“The University’s student body is unusually diverse, geographically and religiously as well as socioeconomically. There is definitely not a typical student, although almost everyone feels that schoolwork is important and studies hard.”

*Insider’s Guide to
Colleges*

Our teachers take their teaching seriously, but they are also involved in the advancement and undertakings of their own fields, taking the initiative in research in laboratories and libraries. Our faculty has garnered considerable support for their endeavors. Washington, considered a major comprehensive research institution, is one of the top recipients of federal and private research funds. These underwrite programs in fields as diverse as earth and planetary sciences, and biology, to the Center for the Study of Islamic Societies and Civilizations. The intellectual excitement of exploring new fields or solving age-old problems carries over into a teacher’s classes; both students and faculty benefit from fresh insights.

A REMARKABLE DIVERSITY OF STUDENTS

Drawn by our reputation for academic excellence, students from all 50 states and more than 70 foreign countries enroll at Washington. More than half of our students come from more than 500 miles away. (A closer look at our entering freshmen can be found on p. 53.) Our students benefit not only from the excitement of trading ideas with bright and curious classmates, but also from the very diversity of their backgrounds.

Our freshmen are talented students, who have done well academically in high school. Every class has its share of valedictorians, National Merit Scholars—Washington is among the top 20 schools enrolling Merit Scholars—and National Honor Society members. But our students’ interests range far beyond their coursework. Each year we have varsity team captains, student government and class presidents, newspaper and year-book editors. Songwriters and synchronized swimmers, marathon runners, magazine models, actors, and magicians have found a special place here at Washington.

This dynamic diversity creates a vibrant community, as our students share with one another experiences, backgrounds, lifestyles, and cultures, both new and familiar. The friendships made here at Washington broaden the students’ understanding and enhance their lives long after their graduation.

OPPORTUNITIES AFTER WASHINGTON

As diverse as our students’ lives are before Washington, even more so are their choices after commencement. Many of them have decided early in their undergraduate years on a career goal, and enroll directly in professional schools after graduation. Top-rated medical schools accept 82 percent of our seniors, a figure 50 percent above the national average; nationally recognized law schools accept 87 percent of our applying seniors. More than half of the students of the College of Arts and Sciences enroll in graduate programs after graduation; within five years of graduation, more than three-fourths will have done so.

Students in the engineering and business schools are courted by a long list of companies during their senior year and are able to choose positions at salaries above the national average with such firms as AT&T Bell Labs, Hewlett-Packard, McDonnell-Douglas, or Monsanto (for engineers); Arthur Andersen, May Department Stores, or Procter & Gamble (for business graduates).

In their career development, students in the College of Arts and Sciences use the services of the Career Center, which include workshops, a career resource library, computer guidance programs, and individualized counseling. Through the extensive interview program of national and local corporations, more than half of the seniors registered with the Career Center have found employment by graduation. Architecture students must continue their studies on a graduate level to become professional architects; within five years of graduation, 85 percent of them have completed the

Master of Architecture degree and are registered architects. The School of Fine Arts fosters each student's artistic vision, to instill the self confidence and self criticism necessary for personal fulfillment and commercial success. Fine Arts graduates continue their studies in graduate programs, accept teaching positions, or apply their talents working for themselves or for others.

A PROFILE OF OUR FACULTY

Members of our faculty are world-renowned for their achievements in fine arts, science, literature, and government. Pulitzer Prize-winning poet Howard Nemerov, who is the 1988-89 Poet Laureate Consultant in Poetry to the Library of Congress, and novelist Stanley Elkin teach in the English department; former White House economic advisor Murray Weidenbaum has a joint appointment in the economics department and the business school; systems scientist John Zaborszky teaches in the School of Engineering; Senator Thomas Eagleton is a University Professor in the business school and in the College; author and critic William Gass is the David May Distinguished University Professor in the Humanities in the philosophy department; painter James McGarrell is a member of the School of Fine Arts faculty; architectural historian Udo Kultermann is a professor in the School of Architecture. Peruvian novelist Mario Vargas Llosa and French novelist and filmmaker Alain Robbe-Grillet teach in alternate years in our Department of Romance Languages and Literatures.

Recognition of our faculty has come not only through reputation, but also through prizes and membership in honorary societies. In addition to the 18 Nobel laureates associated with Washington—the most recent being Biology Professor Emerita Rita Levi-Montalcini and Stanley Cohen in 1986—the list of honors is long. We have:

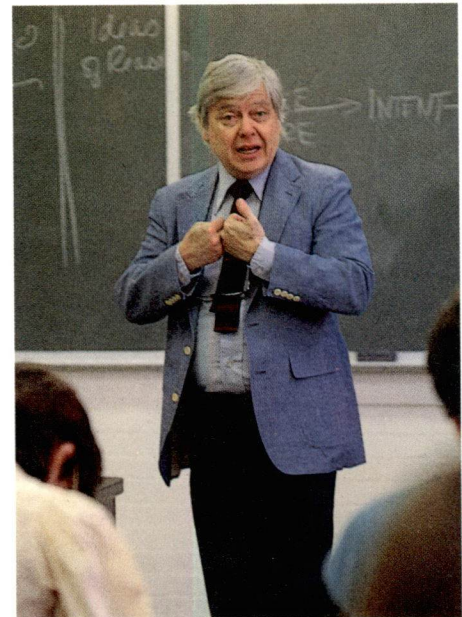
- **33 members of the National Academy of Sciences or its Institute of Medicine,**
- **16 members of the American Academy of Arts and Sciences,**
- **two members of the Academy of American Poets,**
- **five members of the American Academy and Institute of Arts and Letters,**
- **two members of the American Philosophical Society,**
- **one member of the National Academy of Engineering,**
- **one Lifetime Fellow of the international Linnaean Society,**
- **Pulitzer Prize and National Book Critics Circle Award winners,**
- **the 1988-89 Poet Laureate of the United States,**
- **two winners of the National Medal of Sciences and one of the National Medal of Arts,**
- **more than 250 editors of professional and scholarly journals, and**
- **recipients of numerous national and international fellowships, including a MacArthur Fellowship.**

This long list of honors will show you that our faculty is recognized nationally and internationally. But their own accomplishments are never more important than the accomplishments of their students.

Who do I think of when I think of good teaching?

I think of Susan Rava, pacing about the room, patiently taking a French 201 class through the intricacies of the subjunctive. Merci, Madame Rava. I think of Benjamin Taylor and the intensity in his eyes and his voice as he reads Conrad or A Passage to India. And I think of Dan Shea, my advisor, who is a great scholar, but who is also very down-to-earth and human and real. It is a rare combination.

Jack Grone, Arts and Sciences, in Student Life, April 12, 1988



William H. Gass, David May Distinguished University Professor in the Humanities



College of Arts & Sciences

Central to any university is the lively intellectual activity that characterizes the arts and sciences. The College offers a splendid opportunity to extend your understanding of the world and yourself and to develop the broad interests and skills with which to build a satisfying life.

For some students, decisions about the future come easily; for others, the decision requires time and experience. Some Arts and Sciences students already know they wish to prepare for studies in law or medicine. Others are considering careers in government, business, journalism, public affairs, education, or scientific research. But many, who arrive undecided about the future and willing to explore, discover or confirm permanent intellectual interests through study in the College.

Above all, the College provides the richest resources for success in any occupation: heightened critical powers, an ability to organize and synthesize information, a capacity to write and speak effectively, and a familiarity with those commitments and values that thoughtful men and women have discovered make life worthwhile.

SIZE AND STRUCTURE

The College is made up of 2,550 students enrolled in a wide variety of programs in the humanities and the arts, the natural sciences and mathematics, and the social and behavioral sciences.

A distinguished faculty stimulates students to investigate and reflect on society, culture, and the physical world and our relationship to them. The faculty consists of poets and performing artists, of biologists, economists, and philosophers, of historians and chemists, all of whom are involved in teaching, learning, creating, and opening new frontiers of knowledge. Nearly 350 full-time professors, joined by about 130 part-time instructors, artists-in-residence, and guest faculty, are engaged in the intellectual life of the College.

THE CURRICULUM

A liberal education such as the College of Arts and Sciences offers has two principal components. On the one hand, it provides appreciation for the richness and variety of intellectual activity and for the diverse methods by which knowledge is developed. This breadth is balanced, on the other hand, by pursuit in depth of at least one area of knowledge. Both breadth and depth are important in cultivating the informed, inquiring, critical outlook essential to leadership in our society.

The basic tools of modern learning—the ability to write clear, expressive English prose and the ability to reason about quantitative data—are fundamental to all study. The College assures mastery of these skills by measuring performance on recognized tests, or by requiring a relevant course chosen to suit individual needs and goals.

Breadth of Understanding

The College of Arts and Sciences assures scope in education through a set of flexible distribution requirements. Students choose courses from a varied, substantial list in each of several broad categories. These courses present main currents of modern science, analyses of social structures and issues, and perspectives on human culture and experience embodied in literary, historical, and philosophical texts. Study in foreign languages, in the arts, and in logical reasoning also earns distribution credit.

Distribution requirements, which may be undertaken throughout the four years of undergraduate study, comprise no more than a third of any student's program.

Depth of Knowledge

Full preparation of an informed, inquiring mind is completed by the detailed pursuit of one or more areas of knowledge. A major field of study provides a thorough exploration of a field's characteristic aims, problems, and ways of thinking, as well as the limitations imposed by its methods.

Twenty-nine majors are offered by the various departments of the College. In

addition, committees composed of faculty members from several departments offer 15 interdisciplinary majors. (See pages 12 to 18 for sketches of departmental programs.) A curious student may also develop a major to suit special goals, in consultation with faculty members in two or more departments.

Depending upon the complexity of the field and each student's preparation for it, the major will require from 20 to 40 percent of the undergraduate program. The variations in each major permit careful tailoring to personal goals.

Curricular Variety and Advising

More than a third of any College program is left free for electives—courses selected according to individual interests, emerging aspirations, and changing tastes. Thus no two students in the College undertake precisely the same program of study.

The College offers optional minor programs (described more fully on page 34) that may provide an imaginative complement to the major. Some students complete a second major, whether in a related field or in a wholly different one. Others simply explore offerings throughout the College curriculum: a sociology major may take up acting, a French major may learn FORTRAN, a chemist may investigate the politics of international development.

The faculty and deans of the College offer as much guidance in curricular exploration as students desire. In the freshman year, a College advisor brings information and experience to the discussion of each student's evolving interests and goals, then helps design a program and select courses. Upon declaring a major, which may be done as early as the end of the first year or as late as the third, each student is assigned—often, may choose—an advisor in the major field of study.

Beginning in the fall of 1988, each freshman will also have informal assistance in making full use of the College's opportunities, extracurricular and social as well as academic, from an experienced upperclass student who has volunteered and been trained to fulfill this helpful role.

THE FRESHMAN YEAR

First-year students differ widely in their preparation, expectations, and aims. Each student admitted to the College of Arts and Sciences should be able to design a program suited to personal interests and abilities. Some enroll in one of the distinctive freshman programs described below. Others, in consultation with the College advisor, simply select a variety of courses, usually five, from a lengthy list of possibilities.

Students who are admitted to the College of Arts and Sciences receive a brochure describing "Text and Tradition" and the FOCUS Plans for the coming year in the spring of their senior year in high school. Then the planning and the many choices can begin.

The Text and Tradition Program

"Text and Tradition" courses introduce students to the great ideas and fundamental texts of Western philosophy, history, and literature that are the origins of our consciousness and our society. If you choose this option, in two classes each semester you will read, reflect on, and discuss texts from Homer and Plato through Newton and Locke to Darwin and Marx. The discovery of the self, the rise of ideas like liberty, and the impact of the scientific revolution are among central themes considered.

The remainder of your first-year program will be selected from the full range of the College curriculum; it will probably include beginning courses in your prospective major field. One of the program's professors will be your faculty advisor. Most "Text and Tradition" courses fulfill the distribution requirement.

FOCUS Plans

The FOCUS program is a one-year course of studies that engages small groups of students and faculty who have similar interests in current affairs. Each FOCUS Plan includes, in each semester, an integrated pair of courses related to a timely topic or issue. Central to each FOCUS is a seminar examining the core questions of the topic. Other courses in FOCUS are directly related to the questions raised in the seminar. The seminar includes no more than 16 first-year students working together with a professor who also serves as College advisor for each member of the group.

Four FOCUS Plans are available to first-year students in 1988-89:

Law and Society

What are the essential elements of a legal system? How do laws and legal institutions reflect the larger society? Who makes the laws, and who benefits from them? Does positive law lead to justice in America, or diverge from it?

Questions like these have persistently concerned both citizen and scholar. For the College undergraduate, law is studied not as a technical skill but rather as a set of institutions for implementing social policies, as a pattern to be examined for its historical roots and contemporary social effects.

The FOCUS Plan in Law and Society brings students together with faculty members from political science, sociology, and law. The fall semester seminar explores aspects of constitutional rights and examines the interpretation of the American Constitution to satisfy social needs and aspirations. The spring semester seminar deals with contemporary legal procedures and how they affect the search for equal justice in American society.

The Arts in Contemporary Society

America is often seen as a business-managed society, and our era as a materialistic one. Yet the power of the imagination to illuminate our lives in the mirrors of art is a vibrant undercurrent in American culture. Contemporary poetry and fiction reveal our actions and passions, motives and evasions in images we recognize and in alternative voices that confront us with new truth. Theater and dance companies flourish, and crowds flock to exhibitions in American museums and galleries.

The FOCUS Plan looks at the modern development of the arts in America and at the growth of American audiences for artistic expression. The fall semester seminar will concentrate on American drama from the achievement of Eugene O'Neill (whose centennial anniversary is 1988) through Arthur Miller, Tennessee Williams, and Edward Albee to current masters Sam Shepherd and David Mamet. The spring seminar will explore masterpieces of Western art from Chartres to Picasso and beyond and the growth of appreciation and connoisseurship in America. Live and video-taped theatrical performances and visits to the University's fine small gallery and the St. Louis Art Museum play a major role.



Howard Nemerov, Edward Mallinckrodt Distinguished Poet Laureate of the United States

The Search for Values

In contemporary culture the term "value" is more likely to be applied in a discount store than to the idea of justice. The prospect of searching for values in a college's curriculum may thus seem a little peculiar. Yet there are objects and qualities which we affirm as good or beautiful. They reflect what individuals and societies consider the highest goals of human life: ideals to measure excellence. Indeed, all human choices reveal what is felt to be truly worth having and being. The books we read, the policies we enact, the buildings we erect, even the education we pursue indicate the values to which we are committed.

This FOCUS explores the role of values in Western culture. Its texts illustrate how men and women have sought meaning and value in their lives. Students are encouraged to compare the various perspectives and to form some estimate of their relevance to their own personal search for values.



University Professor and

International Development: Latin America and the World

In the last 30 years, the concept of an underdeveloped “Third World” has emerged to distinguish certain nations both from the advanced, industrialized world of North America and Western Europe and from the Socialist bloc of the Soviet Union and Eastern Europe. Latin America offers a rich opportunity for study of the Third World, both because it is our nearest neighbor in the hemisphere and because Latin American writers, in these decades, have been among the most articulate in the world.

This FOCUS Plan explores Third World people and cultures with special emphasis on Latin America. It examines the role of developing nations and analyzes literary texts to probe social, political, economic, and philosophical questions that contribute to the concept of the Third World. Why is the Third World composed of countries where the people and cultures are non-Western and often non-white? Why is development in the Third World often associated with nationalism and revolution? What are the sources of the eloquent voices in Third

World literature? Participating faculty are drawn from Latin American Studies and sociology, with visitors from several other disciplines to speak on China, the Middle East, and Africa.

Preprofessional and Combined Degree Programs

Many students enter the College with a goal of professional studies in medicine, dental medicine, law, social work, or business. The College assists in planning a program that meets the requirements of the professional schools, with College deans giving particular attention to pre-law and premedical advising.

Entrance into medical school or dental school requires completion of a number of specific courses: one year of general chemistry, one year of organic chemistry, one year of biology, one year of physics, some English, and some mathematics. To prepare for the Medical College Admissions Test, these courses must be taken in the first three years.

Premedical students may concentrate in almost any field, including the humanities and social sciences. Premedical studies are also compatible with a FOCUS Plan or “Text and Tradition” — in fact, “Text and Tradition” was designed in part to provide balance for those who devote much of their study to science.

In cooperation with the schools of Business, Dental Medicine, Engineering, Medicine, and Social Work, the College allows selected superior students to enter professional training at the end of the third year of undergraduate study and receive the A.B. degree upon completion of the first year of professional training, while they continue work toward a Washington University graduate degree.

SPECIAL CURRICULAR OPPORTUNITIES

The A.B.-A.M. Program

Students who have a definite commitment to a major field of study and a capacity for intensive work may choose to complete two degrees—the Bachelor of Arts and the Master of Arts—within a four-year period. A dedicated student gains the advantages of rapid advancement, stimulating study at the graduate level, and unusually close work with senior faculty at an early stage. Of course, an advanced degree for a normal investment of time and tuition has attractions

for many. Departmental requirements for the joint A.B.-A.M. degrees vary, but they are most easily met by students who enter with Advanced Placement credit or who can undertake summer study. Joint-degree graduates have taken their bachelor’s and master’s degrees in fields ranging from economics to French to earth and planetary sciences. Biology and psychology are the most popular choices.

Access to Graduate and Professional Schools

Students may enroll in selected specialized courses, some of them designed especially for College students, taught within the undergraduate professional schools—that is one of the great advantages of pursuing arts and sciences in a university. For juniors and seniors with adequate preparation, advanced course work may be undertaken in the graduate schools of Medicine or Social Work, or, of course, the Graduate School of Arts and Sciences.



I try to get into a dialogue with students—whether via the vehicle of literature, or via the vehicle of a grammar and structure course—get the students to speak about what moves them, what concerns them, what interests them, and what they expect once they have gone through four years of college and expect to go out and make a living. I like to think of myself as an open, engaged, impassioned teacher.

Gerbild Scholz Williams, Professor of German

University College

University College is the unit of the Faculty of Arts and Sciences devoted primarily to adult part-time education through evening courses. Undergraduates in the five residential schools of the University occasionally enroll in University College courses not offered during the day, such as journalism, organizational psychology, and international affairs.

University College also offers intensive English courses for students whose native language is not English. Only the more advanced composition courses may be credited toward the A.B. degree, so students who need additional practice in spoken English should plan to spend additional time at the University to complete their studies.

CAREER PLANNING

The Career Center helps students formulate realistic career goals through individual counseling, group workshops, vocational testing, and alumni networks. The Center also helps with career placement by providing job leads, access to on-campus recruiting programs, and assistance in resume writing and interviewing skills. In addition, a listing of part-time and summer jobs is available.

MAJOR FIELDS OF STUDY

Anthropology

The College's program in anthropology—recognized as one of the leading smaller-sized departments in the nation—offers study in the three major fields of contemporary anthropology: archaeological, biological, and sociocultural anthropology. Special offerings include an archaeological field school and laboratories for primate biology, human variation, archaeobotany, and archaeozoology, and applied anthropology.

Undergraduate students are involved in faculty research, including continuing projects in Afghanistan, Australia, Bolivia, Canada, Costa Rica, Guatemala, Iran, Kenya, Madagascar and Mauritius, Mexico, Peru, and various American states. Short trips to ongoing digs in Mammoth Cave, Kentucky, and Kampsville, Illinois, are popular; the nature of fieldwork fosters strong faculty-student relationships. An exchange program with University College, London, takes a few juniors to London each year to explore styles of British anthropology and ancient and medieval British sites.

Many students undertake minors or second majors in anthropology for the understanding it offers of other peoples and cultures, past and present. Its sweeping perspective on human life makes the field particularly attractive to students training for professions such as medicine and business.

Art History

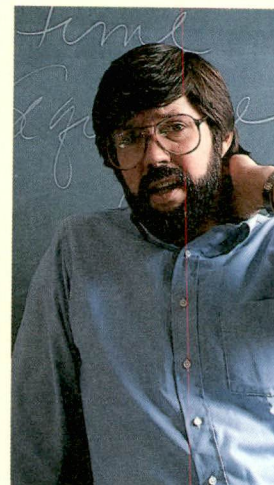
The history of painting, sculpture, architecture, drawing, graphics, and the modern arts are presented in courses that focus on ancient, medieval, Renaissance, baroque, American, modern, and Oriental art. Students have the opportunity to learn connoisseurship and museum practices by working with the professional staffs of the Washington University Gallery of Art, an outstanding academic collection, and of the St. Louis Art Museum.

The research facilities of the 65,000-volume Art and Architecture Library in Steinberg Hall are a valuable resource for students, and the University's collection is supplemented by the library of the St. Louis Art Museum, a short walk from the Washington University campus and always available for visual instruction and refreshment. Visits to the many exceptional private collections in the St. Louis area provide additional enrichment.

Because the history of art is a branch of broad cultural history, students considering a major in art history should acquire a reading knowledge of at least one foreign language and have a strong interest in history, philosophy, and literature. The department's focus on the history of art is complemented by applied studies in design and the plastic arts at the neighboring schools of Fine Arts and Architecture. Faculty members in ancient art collaborate with faculty in anthropology to offer an interdisciplinary major in archaeology, while faculty expertise in Oriental art contributes to an Asian studies major. Exciting experience in classical archaeology is available through Project Odyssey, a 10-year excavation of the site of Odysseus' palace in Ithaka, Greece.

Asian and Near Eastern Languages and Literatures

The nations of the Pacific Rim and the Middle East are increasingly central in modern life, and Washington University is proud of its long tradition in the study of China and Japan and its emerging emphasis on modern Israel and Islam. Ma-



Personal history aside, I teach because I read. I teach because readers, finally, if they are to go to reading, must have someone with whom they can talk. Reading demands exposure both because of the enthusiasm it generates and because, if it is extended, it must be tested by someone else's reading. I teach, then, not because my students need me but because I need them, need someone to talk with about the things I read even if I have to force that someone to do the reading by making it a course requirement. Only by teaching can I insure that I will always have someone with whom to talk.

*Wayne Fields,
Associate Professor of English*

Students undertake courses in the languages, literatures, philosophy, and religion of these vastly different cultures. Language instructors teach both modern spoken and classical literary forms of Chinese, Japanese, Hebrew, Arabic, Turkish, and Persian. Courses in Oriental or Islamic literature and thought span the cultural monuments from high antiquity to the present, including introductory surveys as well as more detailed courses and independent readings. Students who achieve modest linguistic competence may study in China (Beijing and Nanjing) or in Japan (Tokyo) through Washington University's programs abroad.

In addition to majors in one of these languages, students may assemble minors from Asian studies or Jewish and Near Eastern studies courses in history, art, law, politics, and anthropology. Special strengths include an unusually handsome library with an outstanding 60,000-volume collection of materials on the Far East in Chinese, Japanese, and Western languages and regular contact with Chi-

nese and Japanese graduate students in the department who contribute current knowledge of Asian life and idiomatic linguistic fluency. A new Center for the Study of Islamic Societies and Civilizations brings outstanding scholars to enrich the regular campus programs.

Biology

The interests of the faculty in biology extend from the chemistry of the molecules and genetic codes that make life possible to the relationships that exist among populations of animals and plants. In the freshman and sophomore years, students begin with two core courses on these themes: organismic and molecular biology. Majors may subsequently specialize in neural, plant, developmental, or population biology. To assure sufficient perspective, students must take at least one advanced course in each of three areas; thus every biology major becomes familiar with several levels of biological organization, from molecules and cells to organisms and populations. The program also allows ample time for independent research, in which as many as 100 students engage each semester.

Biology's four buildings include classrooms, teaching laboratories, research laboratories, a state-of-the-art greenhouse opened in 1988, animal quarters, and an excellent library. Field studies are carried out at the University's 2,000-acre Tyson Research Center, about a half-hour's drive from campus.

The department is affiliated with the renowned Missouri Botanical Garden, whose superb library and arboretum are available to undergraduates, and with the St. Louis Zoo, well known since director Marlin Perkins' era. The department is also part of the Division of Biology and Biomedical Sciences, a cooperative venture linking biology with preclinical departments in the School of Medicine. Through this relationship, medical school faculty members teach in undergraduate courses, and numerous undergraduates are engaged in research at the medical center, with its many laboratories and outstanding medical library. The medical school is easily reached by a free shuttle bus that departs every 20 minutes.

Chemistry

Chemistry deals with the compounds present in biological systems, with the materials that make up the earth and other planets, indeed with all substances comprising the universe, and with the laws of nature governing chemical phenomena.

Faculty members in the department lead research programs in such areas as catalysis, electron transfer processes, photosynthesis and photochemistry, nuclear magnetic resonance of biological systems, and organometallic chemistry. This diversity increases opportunities for undergraduates to participate in faculty research programs. Many majors spend a year or more in a research group, becoming familiar with the literature and special instrumentation, and often contributing to publications.

The carefully structured major provides three years of core courses in general, analytic, organic, and physical chemistry and introduces an increasingly sophisticated laboratory experience. Contemporary research emphasizes modern instrumentation, and the department is one of the best equipped in the country. With small enrollments in advanced laboratories, the student gains hands-on experience with spectrometers, gas chromatographs, microprocessors, NMR spectrometers, and radiochemical counters. Seniors are encouraged to select research projects

with the faculty or courses pertinent to career goals, such as organic synthesis or nuclear chemistry.

Classics

Instruction in ancient Greek, Latin, and Biblical Hebrew languages and literatures, as well as courses in ancient civilization requiring no knowledge of original languages, are open to both majors and non-majors. With few exceptions, classics classes are small enough to be held in seminar rooms. Discussion in class is encouraged, and faculty members welcome students meeting with them outside of class.

Students choosing to major in classics may concentrate in Greek or Latin, or they may take an alternative major in ancient studies, drawn from courses in classics and related departments. The University is part of a program that permits interested classics students to spend a year studying in Athens, and study in Italy may be arranged.

Washington University's classics department is one of 12 in the country with an Ibycus computer system, which allows students and faculty to identify ancient manuscripts and analyze classical texts. Its memory stores approximately three-fourths of the world's Greek literature from about 750 B.C. to A.D. 600 and much of Latin literature as well. The Wulfling Collection of ancient coins and a strong papyrus collection round out the department's resources.

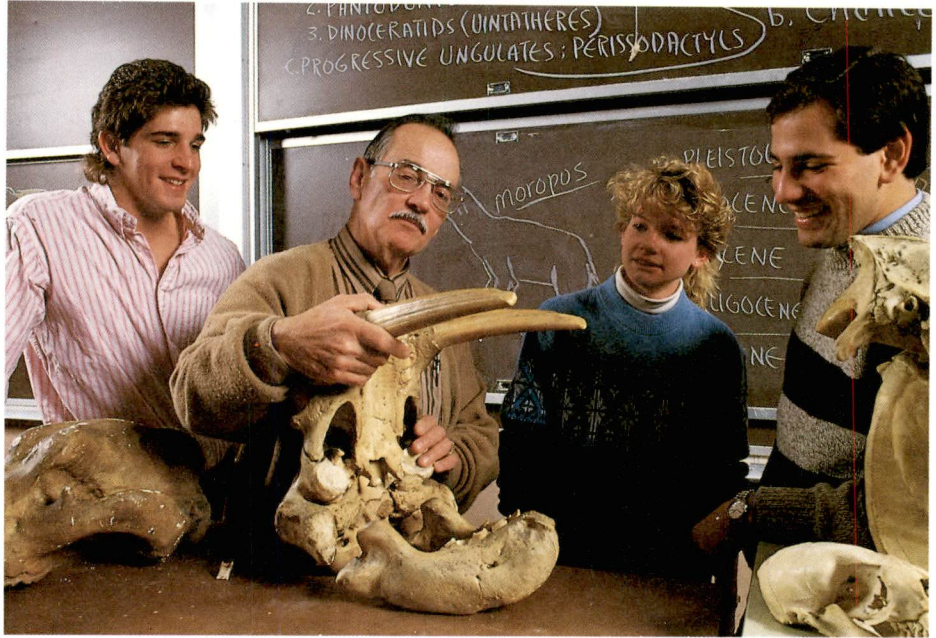


Earth and Planetary Sciences

Geological science at any university seeks to discover the varied and endless natural processes that alter the face of the earth and neighboring planets. Washington University's McDonnell Center for the Space Sciences and the NASA Planetary Imaging Facility on campus provide an unusual concentration of scientists who focus on the physical characteristics of the terrestrial, inner, and outer planets. Research on such current geological topics as plate tectonics and geochemistry of the earth's crust also takes place, often shared with students.

Individually designed major programs provide the background for graduate work and careers in geomorphology, geochemistry, geophysics, and paleontology, among others. The department also offers a program for students with a general intellectual curiosity about broad aspects of the physical environment such as weather and climate, land forms, rivers and oceans, and mineral and energy resources. All majors complete a supervised field experience; sites range from the New Madrid fault of southern Missouri to outcrops near the Arctic Circle on the Canadian Shield.

The department building contains classrooms, laboratories, a library with



Harold L. Levin, Professor of Earth and Planetary Sciences and Associate Dean for Pre-professional Advising, College of Arts and Sciences

more than 40,000 volumes, maps, and documents, and extensive research collections of minerals, rocks, and fossils.

Economics

Economics courses serve everyone from liberal art students seeking economic literacy to majors contemplating graduate work in law, economics, or business. The introductory sequence gives familiarity with the problems of a modern economy and with the analytical tools developed by economists. It focuses on development of a logical, disciplined way to deal with business, social, and personal financial problems and issues. Advanced courses develop applications of interest to students majoring in other disciplines as well as economics: the economics of law and of health and medical care, comparative systems and public policy, economic history, money and banking, and business-government relations.

The economics major requires two courses in intermediate economic theory and seminars for 12-20 students applying intermediate analysis to such specialized areas as public finance, labor, urban economics, international trade and finance, and economic development. Many economics majors continue on to graduate study in law, business, or public administration or in doctoral programs in economics. Many also confirm the spirit of economic values by successfully seeking employment immediately upon graduation.

Education

Washington University's training in education is offered by an interdisciplinary social science faculty committed to both the professional and the liberal study of schools and learning. Undergraduates may pursue studies leading to certification in a full range of teaching fields, both elementary and secondary. Those in the teacher preparation programs gain essential student-teaching experience in the local schools, while observation opportunities are available to all students interested in the process of schooling.

For students not interested in obtaining a teaching certificate, the program in educational studies examines education and its role in modern America. Often selected as a second major, educational studies can complement preparation for careers in law, government, or medicine with an emphasis on the problems of children. Courses in childhood and society, contemporary educational problems, law and education, and gender issues in education are open to students throughout the University.

English

"What can I do with an English major?" Or, as Whitman asked, "What use is a baby?" Neither question is easily answered. Washington University's English department believes that the fully mature person is also a fully mature user of our common language, sometimes for practical purposes, sometimes for creative ones.



Professors introduced me to whole new, unimagined worlds. I explored the great traditions of Western civilization, debated the philosophical traditions of the ancient and modern worlds, argued the merits and disadvantages of deficit spending, the Strategic Defense Initiative, and religion. At Washington, I not only had the opportunity to explore several disciplines, but to push their boundaries.

*James T. Madore,
Arts and Sciences*

English majors at Washington University may be interested in teaching, journalism, or publishing, or they may seek nothing less than a solid liberal education to prepare them with skills of analysis and expression, a fund of learning, and an ability to address problems imaginatively.

Washington University is proud to be the home of a distinguished group of novelists and poets, often recognized by national awards; in addition, other nationally known writers and critics spend regular periods in residence as guest faculty. Opportunities for creative writing, with close personal attention to the student's work, are matched by few colleges in the country.

All freshmen not exempted through high scores on Advanced Placement or College Board English Achievement exams begin by giving attention to their writing in the required Expository Writing program. Exempted students are eligible for a special seminar taught by senior faculty, or they may proceed directly to the sophomore literature sequences, in effect beginning their major as freshmen.

The major in English asks students to explore the full achievement of English and American literature across 900 years and to probe at an advanced level a few writers, genres, or eras of particular interest. An honors program culminates in a significant senior thesis.

Germanic Languages and Literatures

The German department offers a full program in the language and culture of Germany, past and present, as well as in Swedish and Dutch, under an outstanding faculty of national and international renown. Advanced courses acquaint students with the cultural, social, political, and economic history of German-speaking Europe, with special emphasis on the modern period. Accelerated courses permit achievement of maximum linguistic command in a minimum of time; advanced placement through examination is also available. The language of departmental offerings is, of course, German.

Many students pursue double majors which combine study in German with study of physics, chemistry, mathematics, history, philosophy, engineering, or comparative literature, to mention only a few. An active undergraduate club sponsors German film festivals and other cultural and social events. Students may study

abroad for a year at the University of Tübingen or for a summer at the Goethe Institute in Göttingen.

History

Just as history itself follows no set pattern, neither do the varied offerings and faculty backgrounds found in the College's department of history. Department courses include the social, legal, economic, and intellectual history of the United States, black and women's history, and the history of medicine. The full scope of European history—British, continental, Russian, and Jewish history, from the medieval world to the present—is presented as are a variety of courses in the history of Latin America, China, Japan, and Islam.

The history major requires broad exposure to the field, demonstrated by one

advanced course in each of three broad areas of history: American, European, and Third World. Since many faculty members have cross-disciplinary training in law, political science, philosophy, psychology, medicine, literature, or art, the department encourages the study of history by majors in other fields and welcomes second majors. Those interested in law, economics, international relations, politics, the humanities, and ethnic studies have found history a valuable component in their undergraduate education.

The department has strong faculty advising, a stimulating honors program beginning in the sophomore year, and a popular undergraduate history association that aids in advising and promotes social relationships between students and faculty.



James E. McLeod, Chair of African and Afro-American Studies

Mathematics

Mathematics has always provided the fundamental language for most work in the natural sciences, and the College's mathematicians, who specialize in fields from harmonic analysis and topology to biostatistics, have strong links to researchers in physics and medicine, among others. Opportunities for students, from theoretical math to practical applications, are equally broad. Involvement of the faculty in mathematical research offers students contact with teachers who communicate a deep understanding and enthusiasm for their subject.

Each year the mathematics department offers more than two dozen undergraduate courses—all taught by regular faculty members—covering all major areas of modern mathematics and designed both for majors and for others seeking knowledge of theoretical mathematics beginning with the calculus. Less technical courses are available to students who want some insight into mathematics and computers as part of their liberal education.



A lot of factors brought me to Washington University. It has the arts *and* the sciences, which is what I was interested in. I wanted to taste all kinds of different things. I'd never taken anthropology or political science or anything like that; you don't get that in high school. I'm planning a double major in chemistry and French. I enjoy science and math, but I've got to have a balance. The French department is really good, and the classes are small, so you can get to know the professor.

Dana Hartl,
Arts and Sciences

Many mathematics majors choose careers that make specific use of their training: research, teaching, statistics, applied mathematics, actuarial work.

Music

Two curricula—common in the first two years but divergent in the final two years—lead either to the Bachelor of Arts (A.B.), for students seeking a broad-based liberal education grounded in music, or to the Bachelor of Music (B.M.), for those preparing for musical careers with specialties in composition, theory, music history, or performance. The core curriculum provides a base in music theory, musicianship, and applied music (vocal or instrumental, including performing ensembles). The professional B.M. program requires demonstrated proficiency in piano, additional performance, and concentrated studies in music. Because of this careful structure, students interested in a music major are encouraged to begin their studies in the freshman year.

Full-time faculty members teach courses and provide instruction in piano and voice. Performer-teachers, including many principal members of the St. Louis Symphony Orchestra, provide instruction in other instruments.

Classes in music history and studies in ragtime, jazz, electronic music, and black music attract undergraduates from all parts of the University. The department's three spacious buildings house one of the largest music libraries in the nation, including many recordings and scores, practice rooms, a combined rehearsal hall-recording studio, and an electronic music studio. Performing groups, open to all university students by audition, include a large choir, a civic chorus, a madrigal group, a chamber orchestra, a wind ensemble and a jazz ensemble, and the collegium musicum of performers on early instruments of the 16th through 18th centuries. The concerts and guest artists of the St. Louis Symphony, one of the nation's 10 best, provide extraordinary opportunities to hear the orchestral repertoire performed.

Performing Arts

Opportunities to perform, build and manage a stage set, choreograph, direct, design, or work on independent performance projects characterize the performing arts as much as classes in theatre history or acting. The department's faculty are both teachers and performing

artists, and the artist-apprentice relationship is central to the program.

Students may major in drama (with emphases on dramatic literature, on acting, or on technical theatre), in dance, or in a drama/dance combination. All drama majors undertake basic study in both performance-oriented studies and the history, literature, and criticism of drama. Dance students focus intensely on technique, composition, and improvisation in modern dance, with some opportunities in jazz and ballet. Dozens of students from across the University enroll in acting and dance classes or take part in faculty-directed productions cast from auditions open to all. Thyrsus, the active drama club, and senior honors projects offer opportunities for students to choose, mount, and direct challenging productions.

The performing arts program is centered in a modern building that includes the sophisticated 700-seat Edison Theatre, a studio theatre for experimental work, and a dance studio. Additional dance and rehearsal space is located in the Women's Building. In addition to local productions, students also gain valuable experience by assisting in the staging for 10 or more professional touring companies of international scope that play in Edison Theatre each year.

Philosophy

Philosophy courses are designed to serve the needs of students seeking sound liberal learning as a basis for professional life, as well as those planning for graduate study in philosophy. In metaphysics, epistemology, and ethics, faculty and students consider together fundamental questions: What is reality? What is knowledge? What has value?

Such areas as the philosophy of science, game and decision theory, aesthetics, and biomedical ethics examine the intellectual underpinnings of the natural and social sciences, the fine arts, and medicine. Because of the emphasis philosophers have traditionally placed on reasoning, every course in philosophy—but particularly courses in logic—introduces the student who is planning a career in law, medicine, or business to the theory and practice of coherent analytical thought.

Introductory courses taken by students across the University are normally taught in small, discussion-based classes. Most advanced courses are conducted as seminars, tutorials, and directed reading, permitting close contact with faculty

members who are conducting rigorous original thought on such topics as the theory of rights, the history of skepticism, the foundations of probability, and the philosophy of feminism.

Physics

The Department of Physics at Washington University has a long tradition of excellence in teaching and research. In 1875 the University began a series of undergraduate experimental physics laboratory courses unique to the United States. Today, the department's teaching and research programs include astrophysics and space science, solid state physics, low temperature physics, quantum optics, computer applications in physics, ultrasonics, biomedical physics, archaeometry, elementary particles, and many-body theory.

Because of an unusually favorable faculty-student ratio, undergraduate majors are closely involved in all departmental activities, including research projects, beginning in the sophomore year. Students have easy access to the physics building and library, and one station of a multicomputer system is designed for undergraduate use. There is also an active student chapter of the National Physics Society.

The major program progresses from a core curriculum (quantum mechanics, optics, electricity and magnetism, mechanics and statistical mechanics) to a variety of electives. Undergraduate physics degrees may be earned either through the College of Arts and Sciences or through the School of Engineering and Applied Science. In the College, double majors with subjects as diverse as math and English are increasingly popular.

Psychology

The Department of Psychology prepares students to apply, expound, and expand present knowledge of the science of psychology. The introductory survey course is the first step for all undergraduate study in psychology. Next, students explore the major subspecialties through overview courses in developmental, clinical, social, physiological, and general experimental psychology. Advanced seminars treat specialized topics in each of these fields, and in humanistic, industrial, and community psychology and animal behavior, as well. In a given semester, the psychology student may choose from approximately 30 undergraduate offerings.



The department's research programs provide early and continuing contact with science-in-the-making through independent study that increases exposure to research, particularly in behavioral and experimental psychology. Specialized laboratories pursue the study of psycho-physics, human psychophysiology, social psychology, and sensory physiology. The program in clinical psychology makes available internships in agencies that work in gerontology, substance abuse, disturbed children, and other psychological issues. Other support in the department includes general purpose computers, closed-circuit television, and extensive shop and animal care facilities.

Romance Languages and Literatures

Enthusiasm for French, Spanish, and Italian at Washington University has soared since the department inaugurated an "immersion" method of teaching the beginning course. Four days a week, students attend fast-moving drill sessions

that supplement a master class where the acquisition of principles is emphasized. First, they learn to communicate orally; in subsequent semesters, they expand their competence to reading and writing. This demanding but highly popular method proves to be an efficient means for many students to broaden their education by learning to speak at least one foreign language. To achieve fluency, six-week Summer Institutes in Madrid, Spain, in the Loire Valley of France, and in Arezzo, Italy are open to selected students.

With rare exception, beginning with the second year, classes are taught entirely in the target language. Majors attain a critical appreciation of the literature and culture of France, of Spain and Latin America, or of Italy in courses that explore major literary texts from the middle ages to the present day. Students—majors in romance languages and others as well—may live with the language daily by residing in French or Spanish suites with a native speaker under the guidance of a faculty liaison. For advanced students, there are Junior Year



A student activities fair in Bowles Plaza with Karl Umrath Hall in the background

Abroad programs in Caen, Normandy, in Salamanca, Spain, and—for those interested in international business—in Paris.

Entering freshmen in all fields may be awarded credit toward the degree for previous study in French or Spanish through appropriate Advanced Placement scores, on completion of a literature course.

Russian

The Russian language is essential for serious study of the Soviet Union and of Russia—the present and the past. It is, moreover, the best means for gaining insight into the ways Russians think. The Russian department aims to take undergraduates from no knowledge of the language to a considerable degree of fluency in just four years. Additionally, majors and other interested students are

introduced to masterpieces of Russian literature, presented both in English and in Russian. Advanced courses are small and varied in content, allowing students to work closely with the faculty, sometimes on an individual basis.

Future research scientists, medical specialists, diplomats, and many others will value their knowledge of Russian. Studying the language gives both aesthetic pleasure and practical knowledge.

Sociology

Sociology systematically investigates significant issues in contemporary society. Among the topics that concern Washington University sociologists are the implications of social class for individual opportunity, the function and consequences of racism, the family as a social institution, life in an impersonal, bureaucra-

tized society, occupations and status in America, and crime, substance abuse, and criminal justice.

In sociology classes, students and faculty struggle together to understand these complex questions by comparing different societies or by in-depth study of our own. Students often take part in faculty research, in field work, or in individualized directed reading programs.

Recent sociology graduates have found employment in such areas as marketing survey research, treatment of persons suffering from alcohol or drug abuse, criminology and juvenile delinquency, journalism, labor relations, personnel management, organizational analysis, and health care administration. Sociology courses also serve as preparation for professional study and for doctoral programs in the social sciences.

AREA STUDIES

Some major fields in the College have been developed by bringing together the insights, methods, and experience of several different disciplines. Scholars in these fields then focus on a common topic to which each discipline contributes insight. The major is composed of courses from many fields that have a common theme; the senior year program typically includes an integrative seminar or independent study project directed by a senior faculty member with cross-disciplinary experience.

Current fields available in area studies:

- African and Afro-American Studies
- Archaeology
- Asian Studies
- Biochemistry
- Comparative Literature
- International Development
- Jewish and Near Eastern Studies
- Latin American Studies
- Linguistic Studies
- Literature and History
- Medieval and Renaissance Studies
- Political Economy
- Religious Studies
- Western European Studies
- Women's Studies

Prospective students interested in an area studies major may contact the College Office at Washington University, Campus Box 1117, One Brookings Drive, St. Louis, Missouri 63130 for further information.

School of Architecture

Architecture is a rewarding profession for those interested in creating a humane physical environment. It is both an art and a science, using technology to shape an environment in which human beings can live and work at ease. Architects face great challenges: in planning and building an environment that preserves the earth's ecological balance and an urban environment that not only allows, but urges us to maintain humanistic values.

To meet these challenges, architects must possess a liberal education as well as professional and technical knowledge. The program at Washington University reflects this need for a well-rounded education. The program educates architects whose professional skill and understanding of human needs can respond to today's and tomorrow's challenges.

The program is designed to recognize that a commitment to a career, while not

easy to make, is best made with experience and deliberation. As a result, the program is structured to effectively utilize the resources of the University's College of Arts and Sciences for general study together with the specific studies within the School of Architecture. Decision points are then reached with a varied background of academic work and design experience.

SIZE & FACULTY

The Washington University School of Architecture has approximately 300 students (200 undergraduates and 100 graduate students). Freshman- and sophomore-year studios in architecture have from 20 to 30 students. Junior- and senior-year studios have about 20 students.

The architecture faculty is made up of a core of full-time members whose concerns range widely over the entire pro-

fession. Although each has a primary responsibility to the School, all full-time faculty carry on research or some degree of practice. In turn, a number of full-time St. Louis area architects and planners serve as part-time members of the faculty. Each year, outstanding visiting professors from other parts of the United States and from around the world also enrich the faculty.

DEGREES & CURRICULA

The School of Architecture offers an undergraduate program leading to the Bachelor of Arts (A.B.) degree with a major in architecture, and a professional studies program leading to the Master of Architecture (M.Arch.) degree. Students entering from high school can complete both programs in a minimum of six years. A program leading to a Master of Architecture and Urban Design is also offered.



James R. Harris, Associate Dean, School of Architecture

The freshman and sophomore years are primarily devoted to studies in the College of Arts and Sciences, but include one studio per semester of introductory design work. Beyond a few basic liberal arts requirements, the College's offerings in the natural and social sciences, the humanities, and the arts are open to all architecture students. Advisors from the architecture faculty help freshmen and sophomores plan the professional program.

Work in the professional curriculum begins in the junior year. During the first two years of professional studies, students confront a number of basic issues in architecture through a sequence of studios, supported by lecture courses. Satisfactory completion of this phase results in the Bachelor of Arts degree from the College of Arts and Sciences.



I think it's good to take advantage of the faculty, especially in architecture because you have such a close relationship with your professor. It's very helpful to have his or her ideas and input. Then you can see why your ideas would or would not work.

Also, I think it's good to take advantage of the opportunities provided by your professor not only in the classroom but outside the classroom. A lot of the professors have their own firms, and sometimes they need summer help or draftsmen. I've been able to get my foot in the door by working for one of their firms. That way I've learned a lot about the business side of architecture, too.

Michael Kelly,
Architecture

Students who devote additional time to studies in the College of Arts and Sciences (e.g., to participate in the University's Year Abroad program; or to develop a double major) need seven years to complete both the A.B. and M.Arch. degrees.

The Design Studio Sequence

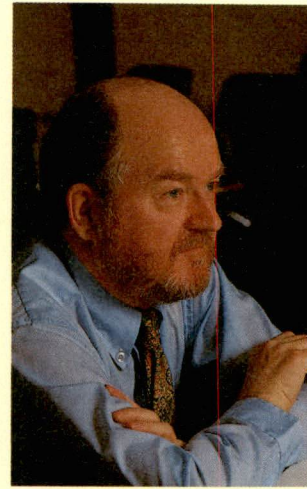
Introductory design studios include a series of two- and three-dimensional exercises exploring perceptual organization, elementary methods of problem solving, materials, form, structure, and man/environment relationships. Introductory studios are taken in conjunction with work in arts and sciences.

In the junior and senior years, students can choose from a number of architectural design studio options each semester, each with a particular design approach. Instructors present diverse attitudes towards architecture in process, techniques, and ideas. Students complete four studios during these two years, gaining an understanding of differences in architectural thoughts and developing their own architectural judgment and values.

The Graduate Programs

Any student with an A.B. degree with a major in architecture from Washington University or another school may become a candidate for admission to the professional graduate curriculum. Such students generally meet the requirements for the M.Arch. degree in two years. Work at this level demands an increasingly independent attitude and focuses on a studio sequence, required courses and seminars, and elective courses taken either in the School or in another division of the University.

Students who hold the Bachelor of Arts, the Bachelor of Science, or the Bachelor of Fine Arts degree without an architecture major are also eligible for admission directly into the professional curriculum. These students are placed within the program at the time of their admission based upon their design background. The maximum amount of time required for these students to com-



Teachers need to remember that students are not there for the teacher's sake. Just the opposite. They are there for the students' sake. I think the right approach is to learn together, to examine something that you and the student want to understand. A real teacher should bring out each student's potential to the fullest and make him or her a partner in a mutual learning experience.

Udo Kultermann, The
Ruth and Norman Moore
Professor of Architecture

plete the professional program is three and one-half years.

Students holding the Bachelor of Architecture degree (a five-year program) from another school may apply for admission directly into the Master of Architecture degree program. Degree requirements may be completed in two or three semesters.

CAREER PLACEMENT

The University's Career Center helps students formulate realistic career goals through individual counseling, group workshops, vocational testing, and alumni networks. The Center also offers assistance in resume writing and interviewing skills. The School of Architecture offers a seminar specifically for graduating students who are entering the job market. The Dean's Office makes available various guides to offices, lists of alumni and alumnae in individual cities, and job offers that have been sent to the school.

John M. Olin School of Business

As society's demand for professionally trained managers continues to increase, men and women interested in management careers seek the undergraduate and graduate business programs that best prepare them for the changing job market. The John M. Olin School of Business is just such a program—a major force in business education at the bachelor's, master's, and doctoral levels.

THE IMPORTANCE OF JOHN M. OLIN

On January 7, 1988, the business school at Washington University was named for the great American business leader John M. Olin. At the same time, it was announced that the John M. Olin Foundation of New York City would make a grant of \$15 million to the School over the next five years. As a condition of receiving this grant, the School has pledged to raise an additional \$15 million during the period of the grant, to match the Olin gift.

Beyond the significance of these new financial resources to the growth and development of the business school, it is a great honor for the School and for Washington University to be associated with the name of John M. Olin. Olin, a giant of American business in the 20th Century, was a trustee and benefactor of Washington University for some 40 years. Olin was deeply committed to excellence in education and supported many educational endeavors during his lifetime. It is fitting that a business school that seeks to provide this same degree of excellence in business education should bear his name.

SIZE & FACULTY

Five hundred and fifty students are currently enrolled in the School of Business.

The 40-member full-time faculty of scholars is supplemented by adjunct faculty drawn from the corporate world of St. Louis and beyond.

The instructors in the business school are devoted both to the advancement of student understanding and to the exploration of academic pursuits in their fields. Their dedication to students is reflected in their accessibility and willingness to discuss issues and problems as they arise.



DEGREES & CURRICULA

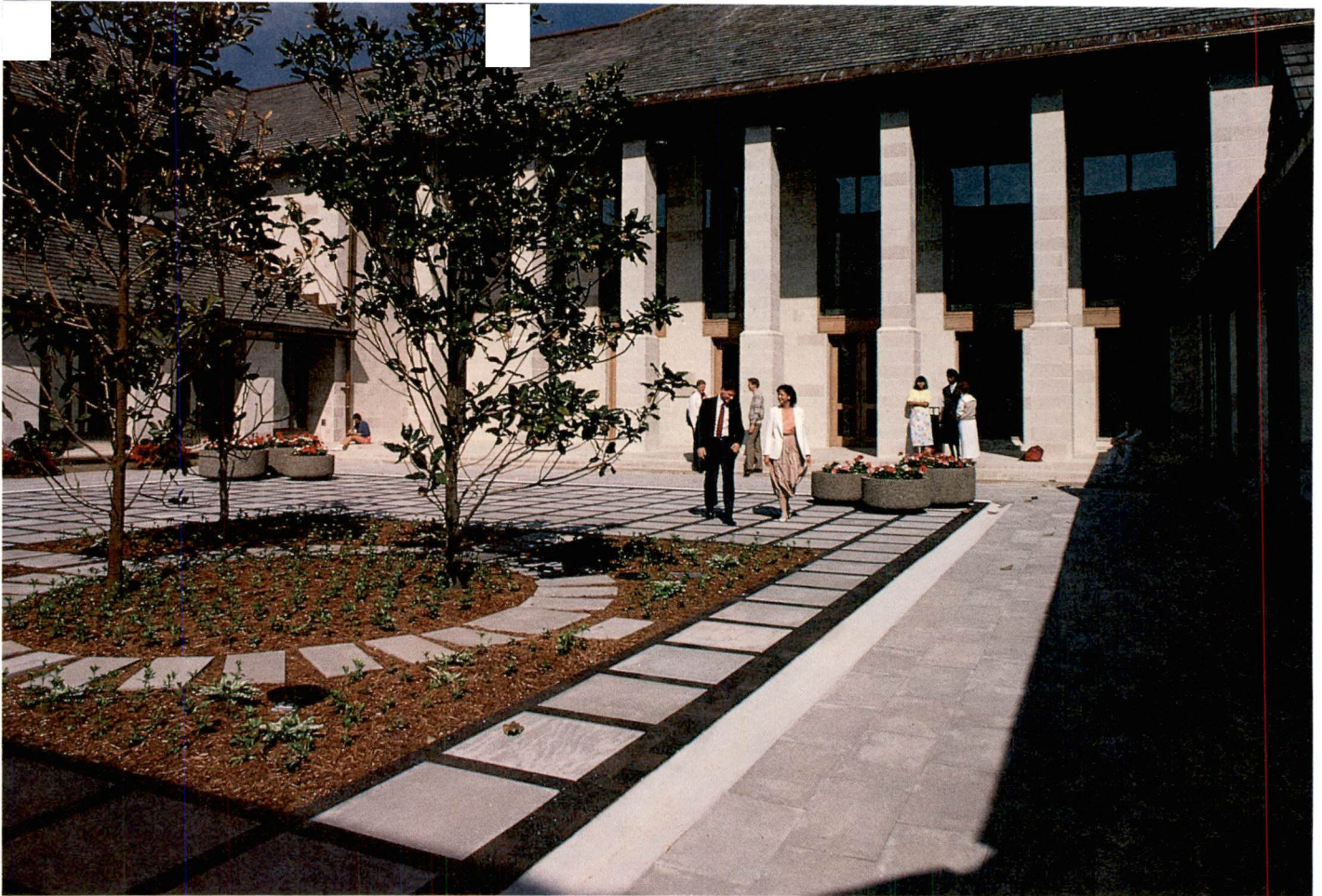
Flexibility in Curriculum Planning

Students come to Washington University with a diversity of experiences, talents, goals, and interests. The flexible design of the curriculum allows them to tailor programs to individual career goals. As students acquire a perspective on management theory and decision-making, they begin to concentrate in such fields as accounting, finance, and marketing. Washington's business undergraduates have considerable freedom to

pursue electives in the liberal arts and are encouraged to explore course offerings throughout the University.

The Undergraduate Program

The curriculum leading to the Bachelor of Science in Business Administration (B.S.B.A.) degree is flexible enough to allow students to pursue many options upon leaving the program; among them: professional careers; graduate programs in business, law, or other related fields; or pursuit of an accelerated M.B.A. degree at Washington University.



The Simon Hall courtyard

Students are introduced to business through courses in accounting, computer science, managerial economics, managerial statistics, and quantitative analysis, as well as a management class that explores the courses of study available and the career options waiting beyond.

Students also meet general education requirements in the humanities, physical and life sciences, ethics and values, international studies, and behavioral analysis; additionally, specific courses are required in calculus and English composition.

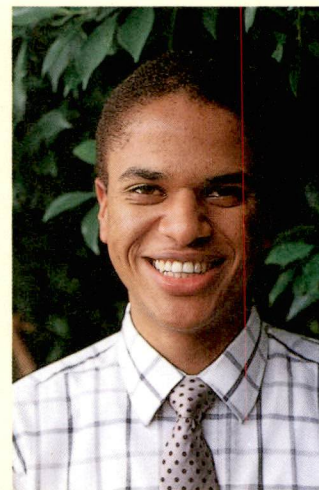
Preparing for Graduate School and the Workplace

All juniors and seniors in the School complete a series of core requirements designed to help them grasp a broad range of business materials.

Students preparing specifically for graduate study are encouraged to take numerous liberal arts electives. The requirements for the B.S.B.A. degree are flexible enough to make this possible.

One option open to those pursuing graduate study immediately upon graduation is the “Three-Two” accelerated M.B.A. program. In this program, students who are doing strong work academically, and who plan to pursue an M.B.A. degree, may apply for early entry into Washington University’s M.B.A. program. Accepted students replace the senior year with the first year of M.B.A. studies, receiving the B.S.B.A. at the end of the fourth year in residence, and the M.B.A. at the end of the following year—taking five years to complete degree programs that would normally require six years of study.

Students planning immediate entry into the employment market will enroll in a large number of business elective courses, in areas such as accounting, finance, marketing, operations and manufacturing management, organizational and human resources, and general management. Our graduates accept entry-level positions with major public accounting firms, and in financial analysis, investment banking, marketing research, and sales.



At Washington, I liked being involved in extracurricular activities. The business school gives you an opportunity to be involved in so many organizations. Through those, I’ve learned how to deal with different people from different places, working together for a common goal. The people I’ve worked with is what I like best about being in the business school. It’s like a small family.

***Conrad Lee Hing,
Business***

RESOURCES

Interacting with the Business Community

Exposure to the business world is a crucial part of business education. The School of Business has a close working relationship with major firms in the St. Louis area, and this results in special educational opportunities: local corporate managers speak to appropriate classes; students have the opportunity, during the senior year, to participate in internships for academic credit.

Business Placement

The Weston Business Placement Center provides services in resume writing, interviewing techniques, summer employment, and career guidance. Career Preparation, a course taught by the director of the Business Placement Center, is popular among undergraduates. The Business Placement Center sponsors a one-day Career Expo to inform students about specific companies, industries, and career fields. Leaders from all areas of business are invited to campus to participate in panel discussions. Recent graduates have found jobs in public and corporate accounting, banking, manufacturing, and in the management of small and family-owned businesses. More than 170 major companies visit the campus annually to interview students through the Weston Business Placement Center.

Support Services and Facilities

The Dean's Office and the faculty provide academic advising and other support services. The Business Library has a working collection of reserve and reference materials, as well as a microfiche collection of annual reports from all companies listed on the New York and American stock exchanges. The Computing Center provides both batch processing and time-sharing services. The personal computer laboratory ensures that students have access to, and instruction in, the most up-to-date computing facilities available.

In the fall of 1987, the School dedicated the Reuben C. Taylor, Jr. Experimental Laboratory in Business and Economics. This computerized laboratory is the focal point of much faculty research. Additionally, it provides an opportunity for students to enhance their learning of business subjects by participating in research experiments conducted by the faculty. By utilizing the

many computer-aided instructional materials that are available in the laboratory's computer network, students can also work on their own. There are only a few computerized research laboratories in the country with the capability and sophistication of our facility. And the Taylor Laboratory is believed to be the *only* laboratory of its kind in any business school in the United States.

The business school's building, John E. Simon Hall, opened in January 1986. This 130,000-square-foot facility provides the highest quality physical setting for business education. It includes classrooms and seminar rooms, a 375-seat business library, a 400-seat auditorium, an executive education center, and the Weston Business Placement Center.

Student Organizations

The John M. Olin School of Business seeks to develop well-rounded students. For this reason, the School supports a wide range of organizations that promote creativity. The Undergraduate Business School Council (UBSC) promotes many academic and social functions. The UBSC sponsors a "Potluck Supper" program which has been popular in bringing students and faculty together. Also active are the Krebs Accounting Club, the Business Minority Council, the Investment Club, AIESEC (an international student organization), and Women in Management. All bring practicing professionals to the School to talk with interested students.

THE GRADUATE PROGRAMS

M.B.A. Program

The John M. Olin School of Business offers the M.B.A. degree through a professional, two-year curriculum. Students become involved in both current practice and prospective advances in management. The program stresses the functional areas of business and the major concepts and tools of business analysis and decision-making. The M.B.A. curriculum is flexible enough to accommodate students from a variety of undergraduate backgrounds, from majors in liberal arts to engineering and, of course, business. The Schools of Law, Social Work, and Architecture offer, with the John M. Olin School of Business, com-



I spend a lot of time and effort in my economics classes to make sure that no matter at what level I'm teaching the course, I'm asking that cutting-edge question. The questions, at the undergraduate and graduate level, would sound almost identical—the only thing that changes is the ability of the students to answer.

The other thing I like to do is simulate textbook situations and the real-world application of those textbook situations right in the classroom. For instance, if I set up some rules, we can bring the New York Stock Exchange to life in the class in a few minutes with trading every bit as real as the models in our textbook. By actually playing out the game, you can see that the theory works well—it actually works a lot better than it might seem.

Don L. Coursey,
Associate Professor of
Business Economics

bined degrees of M.B.A.-J.D., M.B.A.-M.S.W., and M.B.A.-M.Arch., respectively. These combined programs reduce the time that would be required to complete each graduate degree separately.

The Executive M.B.A. Program

The business school's Executive M.B.A. program offers experienced managers an opportunity to prepare, through advanced graduate work, for higher or more productive executive careers. The Executive M.B.A. program can be completed in 21 months (two academic years) while participants continue in their regular careers.

Doctoral Program

The doctoral program of the John M. Olin School of Business prepares students for college or university teaching and research. The principal degree offered is Doctor of Philosophy (Ph.D.).

School of Engineering & Applied Science

Education in engineering and applied science at Washington University introduces students to the people and concepts at the forefront of technology. The School of Engineering and Applied Science uses the full resources of the University.

SIZE & FACULTY

The School of Engineering and Applied Science has about 1,500 students; 1,000 undergraduates and 500 graduate students. The School's freshman class comprises approximately 210 students—about 35 percent are women and 18 percent are minorities. The class averages on the SAT verbal and math sections were 579 and 684, respectively.

The School's faculty encompasses a wide range of specialties, while a desirable faculty-student ratio means our students get personal attention throughout the academic program. The faculty con-

sists of outstanding scientists and engineers whose research brings them into contact with other leaders inside and outside their fields. And all of the faculty are committed teachers.

RESOURCES

The School provides superb facilities for undergraduate education and graduate research. Thirteen independent research laboratories and centers, staffed by faculty, graduate, and undergraduate students, offer hands-on experience in a wide variety of areas.

Numerous professionally-oriented student groups, functioning under the aegis of the schoolwide Engineers' Council, augment the academic experience. The Council sponsors the annual Course-Professor Evaluations, New Student Orientation activities, a newsletter, and Engineers' Weekend.

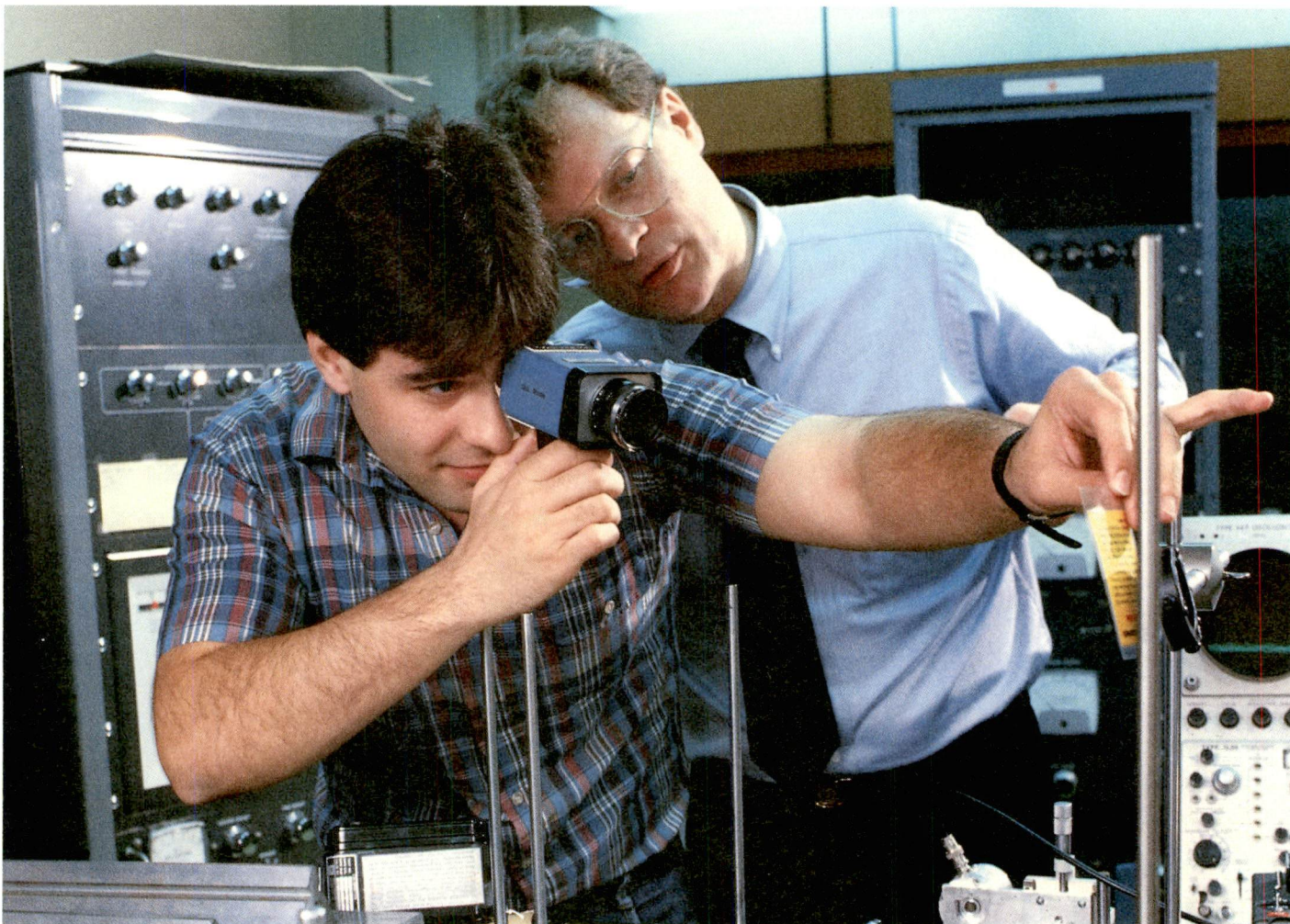
DEGREES & CURRICULA

Undergraduate Degrees

The School of Engineering and Applied Science offers four-year programs leading either to a Bachelor of Science degree in a professional field or to a general Bachelor of Science degree.

Professional degrees are available in chemical engineering, civil engineering, computer science, electrical engineering, engineering and public policy, mechanical engineering, physics, and systems science and engineering. There are also special double engineering degree programs in computer engineering, environmental resources, and process control systems.

Bachelor of Science degrees are available with an applied science major in chemical engineering, computer science, electrical engineering, engineering and



Daniel L. Rode, Professor of Electrical Engineering

policy, or systems science and mathematics. The general degree includes courses in engineering, pure and applied sciences, the humanities, and the social sciences. It is intended for students developing a technical background for the study of medicine, dentistry, law, business, or other professions.

PROGRAMS

Chemical Engineering

Chemical engineers develop, design, and operate systems that involve chemical or biological reactions and the transfer of heat and mass from one location to another. Traditionally, these systems have been large chemical plants, petroleum refineries, food processing facilities, and pharmaceutical plants. Recently chemical engineers have helped develop new energy sources, produce new synthetic materials, and solve biomedical problems. Engineers with this training continue to be in demand—for traditional areas, for critical problems in energy and pollution, and for emerging areas such as biotechnology and microelectronic materials.

The chemical engineering program provides a sound base in fundamentals of science and engineering. A contemporary approach to the field includes computer-supported problem solving, process control, reaction engineering, materials, and the interfacial sciences.

Students complete independent research projects in the department's laboratories, often for independent credit and remuneration. The department encourages independent projects in the senior chemical engineering laboratory and in student contests as well. Seniors also work on design projects in the process design course guided by professional engineers of the Monsanto Company.

Civil Engineering

Washington's civil engineering department was one of the first in the world to use microcomputers in engineering design and field experience simulation. Such innovative thinking, coupled with course work and well-managed laboratories, allows our graduates to meet the challenges of the profession. Civil engineering graduates work in industry, consulting engineering firms, public utilities, and government. Many become principals and partners in their own consulting or construction firms.

As an extension of the courses common to all engineering disciplines—mathematics, physics, and chemistry—civil engineers take courses in surveying, mechanics, transportation, materials, structural analysis, structural design, environmental engineering science, fluid mechanics, soil mechanics, structural dynamics, steel structure design, concrete structure design, foundations, construction management, engineering economics, law and society, urban planning, optimization and decisions, and water quality management.

The civil engineering faculty has a variety of academic and industrial experience and is dedicated to graduate and undergraduate education.

Computer Science

Computer scientists of tomorrow must know the theory of computer science, the practical details of real computing systems, and a set of engineering techniques to become effective leaders in solving important computing problems and in designing new computing systems and methodologies. Computer Science majors at Washington University pursue an integrated education that spans mathematical, linguistic, logical, and physical concepts basic to present and future computer technology.

The Department of Computer Science trains students in both theory and practice. Students work with a wide variety of languages, techniques, and equipment. The program emphasizes the theory, methodology, and experience that teaches graduates to apply computers to a variety of problems, allowing them to keep pace with rapid advancements in the field.

The department's facilities are all available to undergraduates for independent study projects. Hands-on experience begins with the earliest courses and culminates in challenging design projects involving multiprocessing, multiprogramming, and microprogramming facilities and techniques.

In addition, students do actual computer applications work in the many research laboratories that employ computers throughout the University. Recently, seniors have completed applications work in business, psychology, medicine, computer-aided instruction, and in other branches of engineering.

The department also offers a minor in Foundations of Computing.



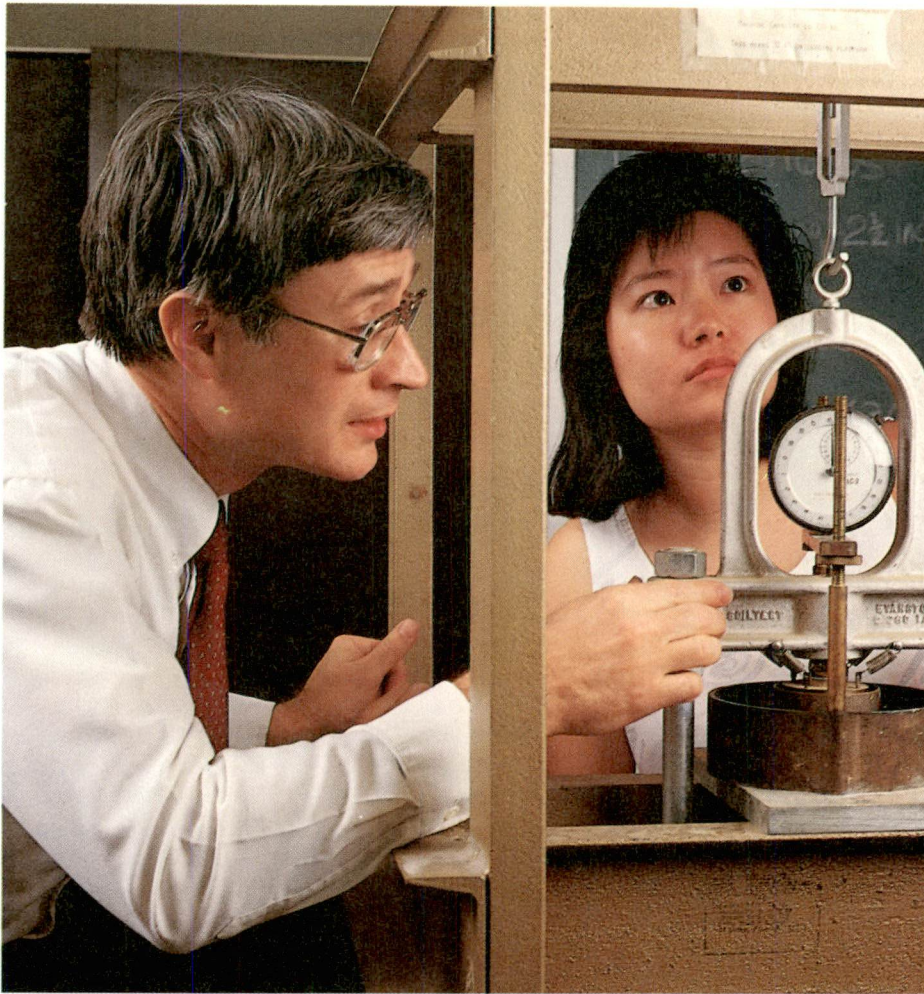
I had a physics professor here who was quiet in class but incredibly thoughtful and caring. I had studied very hard for one of my exams in his class, but I ended up getting a "B." That isn't a bad grade, but I could have done better. He told me he recognized my test score didn't reflect what I knew. Basically, he was telling me, "I can tell you're working hard, and I see your interest in the subject, and I care for you as a student and a person." It made such a difference.

***Annette Carnaban,
Engineering and Business***

Electrical Engineering

This department is the second oldest electrical engineering department in the United States. It offers programs in the range of subjects encompassed by the electrical sciences—topics as diverse as electronic circuits, microwaves, computers, communications, signal processing, control, and biomedical engineering.

Extensive facilities—both in the department and across the University—support student and faculty research activities in nearly all phases of the electrical sciences. Undergraduate teaching laboratories, for example, give students experience in circuit analysis and syntheses, microwaves, computer systems, electrical energy, and biomedical engineering. The Semiconductor Research Laboratory has facilities for performing research on semiconductor materials and devices. At the Biomedical Computer Laboratory and Computer Systems Laboratory in the School of Medicine, students, faculty, and staff develop digital computer technology and apply it to problems in biology and medicine. The department's microwave laboratory al-



Thomas G. Harmon, Associate Professor of Civil Engineering and Director of the Structural Engineering Laboratory

allows students and faculty to explore the physics of electron devices that operate at microwave frequencies. The Electronic Systems and Signal Laboratory provides the resources and environment to pursue research in image and signal processing.

Engineering and Public Policy

Engineers are problem solvers. Increasingly, problems and opportunities facing engineers extend beyond the technical to encompass energy demands, environmental quality, biotechnology, and so on. Such problem-solving requires experience in mathematics, engineering and applied science, decision science, and economics, as well as an understanding of political and social processes. The undergraduate degree in Engineering and Public Policy provides students with the skills to analyze contemporary societal problems in which technology plays a role.

This program rests on the same foundation of mathematics, basic sciences,

and engineering sciences as the other engineering programs. The program integrates the study of engineering with course work in economics and political science.

Distinctive features of the program are required courses that focus on assessing and managing technology; analyzing and evaluating its social, political, and environmental impacts; and making decisions where technology plays a key role. Courses in such subjects are not part of traditional engineering or social science curricula but contain elements of both. The required core in engineering and policy serves a dual purpose: it provides students with skills including technical and economic feasibility analysis, decision analysis, computer modeling and simulation, and quantitative methods of technology-policy design and analysis; and it provides an understanding of problem areas where engineering and public policy interact.

Many students in the Department of Engineering and Public Policy cus-

tomarily participate in faculty research and are involved in engineering and policy analyses that require close contact with public and private firms and agencies.

Mechanical Engineering

Mechanical engineers deal with physical systems that move and with all the problems and challenges of such systems. If something moves, there must be an energy source; energy conversion and transfer are central to mechanical engineering. Moreover, the physical system or machine that moves involves design; efficient engineering design requires the application of statics, dynamics, thermodynamics, materials, friction and lubrication, control theory, and many other basic disciplines.

Today's mechanical engineer is involved in manufacturing, instrumentation, and control of the environment. Mechanical engineers fill roles in every conceivable industry, including apparently nonmechanical ones such as the aerospace, chemical, computer, and electric power industries. Mechanical engineers design artificial organs (hearts, lungs, kidneys) and prosthetic limbs, work on nuclear power generation, develop high-performance composite materials, and seek to control industrial environmental pollution.

The University's undergraduate program in mechanical engineering is for both the practically- and theoretically-minded student. Department faculty members offer industrial design experience in turbomachinery, aerospace technology, internal combustion engines, and mechanisms.

Possible areas of concentration include applied mechanics, biomedical engineering, energy conversion, materials science, and mechanical design. Today's mechanical engineer must be firmly grounded in the mechanics of solids and fluids, thermodynamics and heat transfer, the science of materials, and the principles of mechanical design.

Physics

The School of Engineering and Applied Science, in cooperation with the Department of Physics in the College of Arts and Sciences, offers a program of study that leads to a Bachelor of Science degree in physics.

Physics, which concerns the properties and laws of behavior of matter, is a fundamental science and is basic to an understanding of most areas of science

and technology. As a physicist, you might work in a university or college, in industry, or in a variety of national research and development centers. Physics and applied physics offer career opportunities in a variety of physics areas such as biomedical, environmental, space, solid state, atomic and molecular, nuclear and particle, and plasma, to name a few. Physics emphasizes problem solving; and training in physics provides a base for work in basic or applied research, development, technical sales, and management.

An attractive feature of the department is that undergraduates are closely involved in departmental research activities. Most undergraduate physics majors go on to graduate work in physics. Many also enter schools of medicine or law or graduate programs in business or engineering. Some of our graduates take jobs in industry, federal laboratories, or teaching.

Systems Science and Engineering

Systems science and engineering is a rapidly developing field with applications in industry and government. It combines modern applied mathematics with engineering to study a system of components as a whole rather than as a collection of individual parts. Coordination of various components is essential; each component must relate properly to other components rather than simply function individually. Systems techniques are vital in mechanical, electrical, and chemical engineering; the defense and aerospace industries; electric power systems; electronics; computer design; economics, and many other fields.

In addition to the courses required of all engineering students, a systems science and engineering major takes courses in control and optimization, leading to a variety of career opportunities. Two special features of the program are: every systems major has an outside concentration in another engineering or scientific discipline such as mechanical, civil, electrical, or chemical engineering, computer science, or mathematics; every systems major works on a practical, real-world problem as a senior project.

The department's faculty is dedicated both to teaching and to research. The modest size of the department encourages close interaction with your teachers and fellow students and provides a stimulating environment.

SPECIAL PROGRAMS

The School of Engineering and Applied Science offers the following special programs that allow students to combine engineering with work in other schools.

Biomedical Engineering

Although Washington University does not offer an undergraduate degree in biomedical engineering, students may select it as an area of interest within any department of the School. The interdepartmental graduate program in biomedical engineering provides training for students who seek to apply modern engineering to biology and medicine. The program addresses academic, research, and clinical aspects of many biomedical areas and offers:

- graduate-level courses for students with knowledge and experience in mathematics and the physical sciences, whatever their academic backgrounds;
- intensive research training in laboratories in medical, engineering, and clinical environments; and
- an organized system of direction and advice from faculty of the School of Engineering and Applied Science and the School of Medicine.

Our biomedical engineering program emphasizes sound engineering training

and a thorough understanding of biology and medicine. Therefore, all graduate degrees are granted through departments in the School of Engineering, indicating that recipients have fulfilled that department's requirements for a graduate degree. In addition, a certificate in biomedical engineering indicates that graduates have completed the requirements in medicine and biology as well.

The interaction between engineering and the School of Medicine is a strong feature of the program. Active collaboration goes on with many departments, including surgery, radiology, medicine, cell biology and physiology, biochemistry, pediatrics, anatomy and neurobiology, and others.

Computer Engineering

The undergraduate computer engineering program, offered jointly by the Departments of Computer Science and Electrical Engineering, encourages the development of proficiency in computer hardware, software, and systems. Upon completion, graduates earn two Bachelor of Science degrees: computer science *and* electrical engineering.

Selected courses in computer science and electrical engineering are at the core of computer engineering. Studies include algorithm creation and analysis;



Cupples I Hall, left, and Crow Hall, right, flank the walkway toward the engineering school complex of buildings.

logic design; microprogramming; computer languages; architectural prototypes; data structures; electronic circuits and devices; software engineering; operating systems; element and device modeling; physical principles of electronic devices; digital communication principles; design of very large-scale integrated circuits; compilers, interpreters, and translators; digital signal processing; methodologies for system design; and extensive laboratory experience with digital components.

The program attracts students interested in computing, since it provides training ranging from components to complete computer systems.

Energy Engineering and Policy

The interdisciplinary Energy Engineering and Policy Program is open to all undergraduates in the School of Engineering and Applied Science. Students in this program pursue a Bachelor of Science degree in one of the School's departments and must satisfy the special distribution requirements of the Energy Engineering and Policy Program.

The essential feature of the program is a three-part energy core curriculum from which students select a minimum of 32 credit hours of engineering courses, 6 credit hours of energy policy courses, and 18 credit hours of courses from the College of Arts and Sciences that deal with the economic, social, environmental, and political issues surrounding energy technologies. This combination of technical training and the ability to analyze nontechnical aspects of energy problems leaves graduates prepared for careers in industry and government, and for further graduate and professional education.

Graduates who complete the program's requirements and the requirements for a Bachelor of Science degree in one of the departments in the School of Engineering are awarded a certificate. Their Washington University transcripts indicate their successful completion of the program.

Engineering-Architecture

Students interested in architecture—who also have a strong interest and ability in math, science, and engineering—can take a coordinated program leading to a Bachelor of Science degree from the School of Engineering and Applied Science and a Master of Architecture degree from the School of Architecture. The program normally requires seven years



The concrete canoe race—held here at a small lake in St. Louis' Union Station—is an annual event for civil engineering students.

to complete. Admission to this challenging program is competitive, with emphasis placed on academic achievement and the applicant's genuine concern for the built environment. Professional training in both fields allows the graduate to register as a professional engineer and as an architect.

Engineering disciplines associated with this program are: civil engineering, mechanical engineering, and engineering and policy.

Engineering-Business

The accelerating growth of technology and its subsequent impact on society and industry have created a need for technical personnel to deal with modern business management. In many industries, the complexity of management and advanced technology has created a demand for people with skills in both engineering and management.

In response to this, the School of Engineering and Applied Science, in conjunction with the John M. Olin School of Business, offers a five-year program lead-

ing to both the Bachelor of Science (B.S.) and the Master of Business Administration (M.B.A.) degrees.

Interested students enter the School of Engineering devoting the first three years to studying for the B.S. in an engineering discipline. During the third year students apply for admission to the John M. Olin School of Business and arrange to take the Graduate Management Admission Test (GMAT).

During the fourth year, students take all course work in the business school, which requires courses in accounting, organizational behavior, economics, finance, operations and manufacturing management. Fifth-year courses are taken through both the business school and the engineering school.

Engineering and Premedicine

Students interested in medicine and engineering may participate in the School's premedical option. This option recognizes the increasing importance of the basic engineering sciences to medical and dental education.

As premeds, students major in one of the regular engineering disciplines. Most disciplines are flexible enough to allow enough electives to fulfill the requirements for admission to medical school. A minority, however, do need an occasional overloaded semester; for this and other reasons, the most popular majors have been chemical engineering and electrical engineering.

Students who complete such a program and decide not to go on to medical or dental school have the training for careers in engineering, biomedical engineering, or the biological sciences. This program also adds valuable breadth for students interested in law or business.

Engineering students are also eligible to apply to the Scholars Program in Medicine, an eight-year combined undergraduate–medical school program. (See page 35.)

Environmental Resources

Students in the Environmental Resources Program complete the requirements for Bachelor of Science degrees in both civil engineering and engineering and public policy. The program stresses an engineering approach to environmental protection, including both structural (design and construction of facilities) and non-structural (government regulation, corporate environmental policy, and economic decision-making) solutions to environmental problems.

This combination of civil engineering and engineering and public policy allows graduates to address the technical, societal, and economic components of environmental problems. Program graduates go on to work in private consulting firms; businesses and industries; industrial trade associations; and federal, state, and local government. Others pursue graduate work in environmental engineering, law, business, or public health.

The program is for highly-motivated and well-qualified students who seek to cross traditional disciplinary lines to find the solutions to environmental problems. An important part of the curriculum is the Engineering and Public Policy Design Project, in which a student and faculty member work together on an engineering problem relevant to environmental policy-making.

Process Control Systems

The Process Control Systems Program provides a background in chemical and systems engineering with emphasis on

the science and technology of process automation. Courses in both chemical engineering and systems science and mathematics develop a unified approach to the analysis, optimal design, and control of chemical and other manufacturing processes. Electives allow further specialization in applied mathematics, discrete systems, robotics, decision theory, optimization, or dynamical systems.

In addition to traditional laboratory work in chemistry, physics, and chemical engineering, a laboratory course in digital process control is offered based on microcomputers and advanced commercially distributed control equipment. Familiarity with computers and with process modeling, data acquisition, and control software is essential.

During the senior year, students may complete a major design project either in chemical processing systems (chemical engineering), or in technological or engineering systems (systems science and mathematics). Successful graduates of the program receive both a Bachelor of Science in chemical engineering and a Bachelor of Science in systems science and engineering.

Three-Two Program

The School sponsors a Three-Two Program, in cooperation with the University's College of Arts and Sciences and selected liberal arts colleges across the country. In this program, students spend the first three years at the initial college and then two years at the School of Engineering for intense professional study. Those who successfully complete the program earn the Bachelor of Arts degree from their first college and the professional engineering degree or the general Bachelor of Science degree from Washington University.

Engineering Placement

The Engineering Placement Office offers part-time and summer job search assistance, resume writing, interviewing techniques, and career guidance. The Office also coordinates on-campus recruiting by companies located throughout the United States.

In addition, the Engineering Placement Office offers assistance in obtaining relevant work in engineering through related summer and part-time employment. Career development workshops afford the opportunity to discuss work strategies and job opportunities.

Cooperative Education Program

The School offers this program as an option to selected students. Through the Cooperative Education Program, students are able to obtain relevant work experience in engineering while pursuing their academic curriculum.

The program is open to third-, fourth-, and fifth-year engineering students in all of the School's departments. Qualifications for admission to the program include a minimum 2.6 GPA, completion of the sophomore year, and the recommendation of a faculty member. Students in the program will participate in four off-campus work assignments beginning with their junior year. This extends their date of graduation by one year, making the Cooperative Education Program a five-year baccalaureate program.

Graduate Degrees

All departments of the School offer programs leading to the master's and doctoral degrees. Any student working toward a professional degree in an area of specialization can plan a coordinated five-year program leading to the B.S. and M.S. degrees in that area. Interdisciplinary graduate programs are available in biomedical engineering, materials science, economics and systems science, and technology and human affairs.



If you experience and understand the discovery of knowledge—if you discover through your research knowledge never thought of in this world before—you want to perpetuate it. If you really perceive knowledge to be important, then you want to give this gift to someone else.

Will Gillett,
*Associate Professor of
Computer Science*

School of Fine Arts

The School of Fine Arts is one of very few professional art schools in the nation that are part of a major university. This association between art, the humanities, and the sciences asserts that the study of art has no fixed boundaries—that any human experience, be it intellectual, technological, or social, can be incorporated into the purposes of an artist or designer.

Students in the Washington University School of Fine Arts have two outstanding educational opportunities: (1) to pursue intensive creative work at the School, which is self-contained with its own outstanding faculty and facilities, and (2) to draw upon the entire intellectual and social community of the larger University. Indeed, students combine work in fine arts with studies in the humanities, the other arts, social and physical sciences, architecture, and business.

Specified courses provide the foundation for advancement into a tutorial-

oriented major—a set-up which encourages the development of both creativity and discipline.

SIZE & FACULTY

The School of Fine Arts has approximately 315 students—280 undergraduates and 35 graduate students. The School's size allows for easy interchange among students in different majors and between students and faculty.

School of Fine Arts faculty members are distinguished artists or designers in their own right. Many have received national and international acclaim for their work. Each year faculty members exhibit locally and nationally.

The same faculty members teach both undergraduate and graduate classes, ensuring that undergraduates receive the finest instruction possible. In addition, the School is enriched by the outstanding guest artists and lecturers who visit each year.

DEGREES & CURRICULA

The School of Fine Arts offers undergraduate and graduate programs which present the specialized experiences in the fields of art and design. The degrees granted are the Bachelor of Fine Arts (B.F.A.) and the Master of Fine Arts (M.F.A.).

The undergraduate curriculum is divided into the Core and the Major. The first two years are spent in the structured Core program. During this period, students take drawing and design courses that ground them in visual fundamentals. The Core program is complemented by art electives that help students decide on a major.

The third and fourth years comprise the Major, in which students focus on an area of interest with faculty tutorial instruction. Majors are available in the following areas:

Ceramics

Majors in ceramics work with state-of-the-art facilities, designed and built by fine arts faculty and students. You can choose your own medium, clay or glass.

Fashion Design

Fashion majors learn to solve design and construction problems, to work with flat patterns and draping techniques, and to recognize and appreciate the characteristics of different textiles, among other things. Faculty members themselves have experience in the fashion industry. Visitors from various segments of the fashion world lecture, conduct seminars and workshops, and critique student work. The School of Fine Arts presents a fashion show of student work in the spring.

Graphic Communications (graphic design, advertising design, or illustration)

Majors in this program learn layout, lettering, typography, and related skills; technical processes, such as making films, photostats, and halftones; and business procedures such as scheduling and working with budgets. But above all, students learn how to create visual solutions to communications problems. The professional studio, Create Studio, allows students to test their abilities in real-world projects.



Jeigh Singleton, Associate Professor of Art, directs the fashion design program.



F. William Quinn, Professor of Art

Metalsmithing

Majors in this program have access to excellent facilities, which include space for soldering, burn-out and melting, a laboratory, a buffing-polishing room, a small library, a main studio with 20 belly-holed benches, and a hammering room.

Multi-media

Students majoring in multi-media approach the total resources of the campus as a potential studio. The applications of technology to the arts, interaction between the arts, and relationships with other areas of creative endeavor are all possible connections for the multi-media artist.

Painting

Unlike other Fine Arts areas, technical equipment is not essential to the developing painter; what painters seek out (and find at Washington) are abundant space and light. The painting and drawing program operates on the belief that the best teacher of painting is an active, engaged painter who also teaches, not an educator who also paints. Early painting

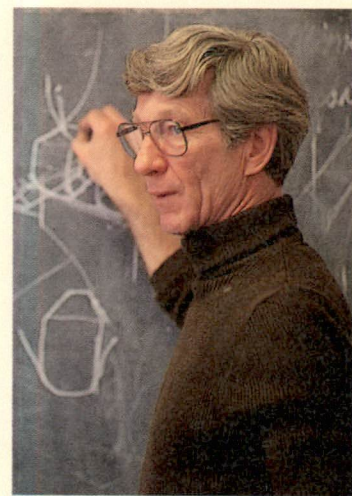
classes emphasize the nuts and bolts of visual fabrication. Junior and senior painters spend more time on subtle alternatives and directions in their work.

Photography

Photography at Washington focuses on "photo survival;" photo education is based upon both fine art and commercial approaches to the medium. Students undertake a course of study to train them as artists and to give them the skills needed to survive as professional photographers. Our superb facilities include separate black-and-white darkrooms for majors and elective students and separate color facilities for processing prints from slides or negatives.

Printmaking

The program emphasizes the development of concepts and techniques over the production of multiple images. Interaction with the other fine arts disciplines is common and encouraged. The department features an array of presses that include some of the largest in the country.



Teaching nurtures me. It turns me on. My approach is a very demanding one. I try to train my students to see. Beginning students come in and conceive of drawing as a photographic image rather than a poetic fiction. They try to reproduce a replica of a monocular image, a one-eyed view of reality. But we see stereoscopically and not with the eye alone but also with our feelings.

Barry Schactman,
Professor of Art



Joyce Ryan, Lecturer in Art, teaches students to use the computer as a design tool.



In my last year of college, I had a wonderful teacher. When he looks at paintings, it is a passionate thing for him. He's been teaching for 40 years, yet he can look at art in this fresh way. I realized that how I looked at art was limited. He reminded us that it takes an artist years to do a work, and you can't look at it for five minutes and think you can understand it. You must go back to it, and not just while you're taking the class but throughout your lifetime.

Ann Lofquist, Fine Arts

Sculpture

The sculpture studios are well equipped with industrial-quality machinery, continually upgraded for new processes and techniques. Processes and materials in use will include clay modeling, construction in a large variety of materials, firing, plaster-mold making, direct plaster work, wood and stone carving, foundry, plastics lamination, soft sculpture, welding, and metal fabrication. Involvement with large-scale environmental relationships and architectural concepts are considered essential experiences for sculpture students.

Further Study Options

Video and computer graphics courses are offered. Video tapes are made of seminars, mock job interviews, and students' performance pieces. A student who is almost finished with a painting can preview final changes on a computer screen before risking months of work by making the changes on the canvas. Students come to realize that technology can be as important a tool as a brush or a T-square.

Courses in academic subjects and in art history are important requirements for the B.F.A. (Bachelor of Fine Arts) degree. Electives may be taken in any academic area of the University.

To qualify as art teachers at the primary or secondary level, students may major in a regular area of study, but must also complete education courses required for Missouri state teacher certification. These courses may be taken as

electives within the four-year B.F.A. program.

A five-year combined degree leading to a Bachelor of Science in Occupational Therapy together with a B.F.A. is available with Washington University's Program in Occupational Therapy. Selected undergraduates may enter the Program in Occupational Therapy at the end of the third year of study in the School of Fine Arts.

RESOURCES

Facilities

The School of Fine Arts is primarily housed in Bixby Hall, known for its excellent studios. Additional specialized facilities are located at Lewis Center in nearby University City. A convenient shuttle bus service is provided. Classes in art history are held in Steinberg Hall, which also houses a major permanent collection, exhibition galleries, a large auditorium, the art and architecture library, and the Department of Art History. The St. Louis Art Museum, one of the nation's outstanding museums, is within walking distance.

Create Studio

The Department of Design sponsors a professional studio, which allows students to gain crucial practical experience while in school. Students in Create Studio deal with all procedures of design and business: concept, layout, presentation, scheduling, production, and billing.

Career Placement

The Career Center helps you formulate realistic career goals through individual counseling, group workshops, vocational testing, and alumni networks. The Center also helps with career placement by providing job leads, access to on-campus recruiting programs, and assistance in resume writing and interviewing skills. In addition, a listing of part-time and summer jobs is available.

The School of Fine Arts supplements the University's Career Center with counseling and placement that help graduates make successful career choices. Approximately 25 percent of the students in the School of Fine Arts major in a design program and, upon graduation, enter the professional field. Almost 30 percent of the graduates go on to graduate studies. The remaining graduates either work independently or work in professional practices such as teaching, art therapy, historical and critical research, or arts management.

Resources & Academic Opportunities

THE LIBRARIES

A network of libraries serves the instructional and research needs of Washington University's faculty and students. On the Hilltop Campus, the John M. Olin Library houses collections in the humanities, social sciences, engineering and mathematics. There are also 11 departmental and school libraries: Art and Architecture, Biology, Business, Chemistry, Earth and Planetary Sciences, East Asian, Law, Mathematics, Music, Physics, and Social Work. On the Medical Campus, there are libraries devoted to dentistry and medicine. The collections in all University libraries total more than 2 million volumes and are growing at the rate of about 55,000 volumes per year. The libraries subscribe to 16,000 journals and other serials.

COMPUTING

Students, faculty, and staff have access to many computing resources, including the Computing Facilities' five large computing systems (which support more than 1,000 terminals), 15 service locations, and numerous microcomputer systems. Computer centers in the residence halls, the business school, and the social science buildings are also available. Many departments and laboratories use computers and computer-based equipment, ranging from the large VAX 750s to networks of microcomputers. Computers, in short, are an integral part of daily academic life at Washington University.

GALLERY OF ART

The Washington University Gallery of Art is one of the finest university art museums in the United States. Established

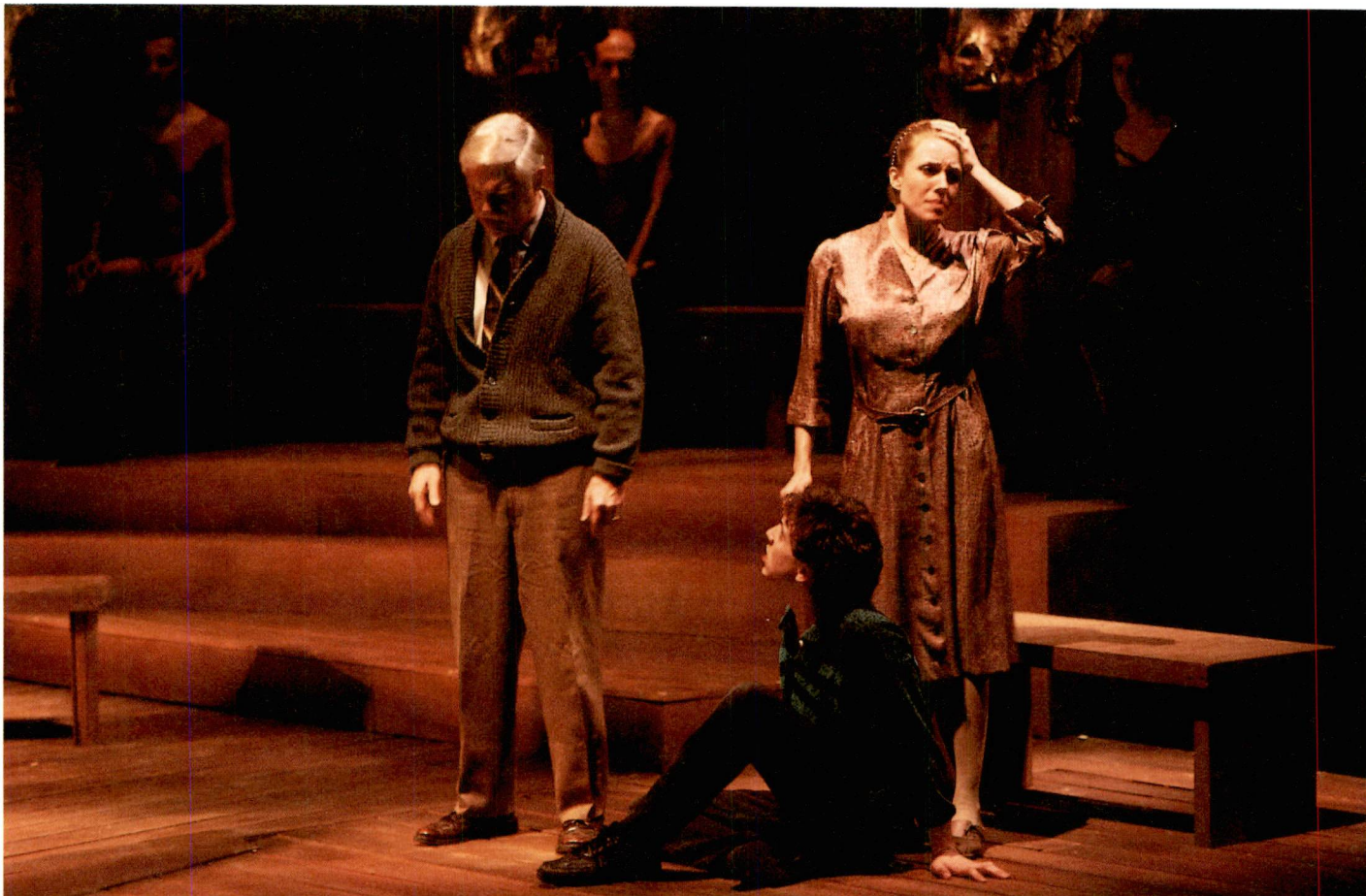
in 1881, it has a permanent collection of 3,000 objects, including important holdings in 19th-century American painting (such as the Hudson River School and Missourian George Caleb Bingham), master prints, and modern works from Matisse to Pollock, Picasso to Miró.

The Gallery serves a dual purpose: it is an educational resource for Washington's students and a cultural resource for the St. Louis community. The Gallery's calendar is filled with lectures, tours, and special programs including annual shows of faculty and student works.

One of the most popular major exhibitions was *Paris in Japan* in the fall of 1987. Six years in preparation, it attracted record-setting crowds before it moved on to the Japan Society Gallery in New York City and the Wight Art Gallery at the University of California, Los Angeles.



Students use LUIS, the computerized catalog of additions to the library system since 1978, at a terminal in Olin Library.



Peter Shaffer's "Equus," staged at Edison Theatre during spring 1988, featured the University's students and faculty members.

EDISON THEATRE

Under the guidance of Henry Schvey, scholar-director of international repute, the Edison Theatre presents an exciting season of drama, music, and dance. The Edison is definitely a force in the St. Louis cultural scene, with touring companies, artists-in-residence, and student productions of professional caliber. One of the highlights of the 1987-88 season was the University production of *Equus*. The play's run was also distinguished by a visit and lecture by the playwright, Peter Shaffer.

The 1988-89 season has scheduled, among other offerings, performances by the National Theatre of the Deaf, the Peking Opera, and Garth Fagan's Bucket Dance Theatre. Colleen Dewhurst will help celebrate the centennial of Eugene O'Neill's birth with *My Gene*, a one-woman show, and a student production of *Murder in the Cathedral* will commemorate the centennial of T.S. Eliot, grandson of the founder of Washington University.

MINORS

Washington University recognizes minor areas of study as an optional part of students' programs. To earn a minor, students take five or more designated courses in a single field outside the major, gaining some depth in an additional area. Some students minor in fields that complement the major, giving contexts, applications, and relevant comparisons—biology majors may minor in chemistry, Spanish majors may minor in English, economics majors may minor in political science. But some who choose a biology major avoid overspecialization and expand breadth of knowledge by minoring in English or history.

Minor programs offer some innovative opportunities. With the guidance of faculty, students may design minors in areas where no major exists, such as American Studies or the History of Science. Groups of faculty with shared, broad interests also offer special minors focused on interdisciplinary problems: Law and Liberty, History and Technology.

As a special feature of undergraduate study at Washington University, students

"There really isn't any 'professional' versus 'amateur' theater. There's only good theater or bad theater. Those other divisions are false, and if the director chooses the play carefully and directs it carefully, he can meet 'professional' criteria."

**Henry Schvey, quoted in
Riverfront Times 4/13/88**

in one school may also complete minors in any other school of the University. College students may explore modern applications of liberal learning—as well as exciting career possibilities—by minoring in management in the John M. Olin School of Business, in architectural studies in the School of Architecture, or in applied design in the School of Fine Arts. Students in the professional schools also minor in other areas—a business student may minor in Japanese or German. The possible combinations for creative tailoring of programs are almost unlimited.

For students interested in computing, a minor in Fundamentals of Computing, offered by the School of Engineering, allows the application of computing to particular fields of knowledge.

THE PROGRAM IN OCCUPATIONAL THERAPY

A professional undergraduate program in occupational therapy is offered on the campus of the Washington University School of Medicine, three miles east of the Hilltop Campus, across Forest Park.

Sixty semester hours of preprofessional study are required to be considered for entrance into the occupational therapy program. Students can earn the Bachelor of Science degree in Occupational Therapy after completing four semesters at the School of Medicine and six months' supervised practice with both children and adults. In the academic and clinical programs, the emphasis is on understanding the physical and psychological problems that result from developmental deficits, disease, and trauma. The curriculum includes sciences such as anatomy, physiology, neurophysiology, and neuroanatomy.

The program accepts 30 students in each of the two years of study. Freshmen admitted to the College of Arts and Sciences are guaranteed subsequent enrollment in the Program in Occupational Therapy after achieving satisfactory records and fulfilling required courses during the first two years in the College.

Combined degree programs, available with the College of Arts and Sciences and the School of Fine Arts, permit selected undergraduates to enter professional training at the end of the third year and receive the A.B. or B.F.A. degree upon completion of the first year of professional training, the B.S.O.T. one year later.

COMBINED DEGREE PROGRAMS

Arts and Sciences

Cooperation between the schools of Business, Dental Medicine, Engineering, Medicine (Physical Therapy), and Social Work, and the College of Arts and Sciences allows selected arts and sciences students to enter professional training at the end of the third year of undergraduate study and receive the A.B. degree upon completion of the first year of professional training and the professional degree one year earlier than normal.

Architecture

A joint seven-year program in architecture and engineering leads to an undergraduate degree (B.S.) in engineering and a master's degree in architecture (M.Arch.). Combined degrees in business administration and architecture, in architecture and social work, in architecture and construction management, and in architecture and urban design are also offered at the graduate level.

Business

The School offers an accelerated "Three-Two" program where students can combine undergraduate and graduate study in business, earning an M.B.A. degree in five years.

Engineering

The School offers accelerated five-year programs leading to a B.S. and an M.S. degree in engineering and in conjunction with the John M. Olin School of Business, to a B.S. degree in engineering and an M.B.A. degree. In addition, a joint seven-year program in architecture and engineering is offered, which leads to an undergraduate degree (B.S.) in engineering and a master's degree in architecture (M.Arch.).

Fine Arts

The School offers a five-year degree in art and occupational therapy in conjunction with the Program in Occupational Therapy at the School of Medicine.

All Schools

Students with multiple interests may also complete two undergraduate degrees—most commonly, an A.B. from the

College with a B.S.B.A. in business or a B.S. in engineering. These combined degrees typically require five years, or the equivalent.

SCHOLARS PROGRAM IN MEDICINE

The Scholars Program in Medicine provides provisional admission to the School of Medicine for up to 10 exceptional freshmen entering either the College of Arts and Sciences or the School of Engineering and Applied Science. The program is not accelerated—it is not designed to produce physicians in the shortest possible time. Rather, its goal is to free 10 students each year from many of the pressures associated with pre-medical studies and thereby to encourage breadth and excellence. Information about the program and its application procedure can be obtained from the Office of Admissions.

RESERVE OFFICERS' TRAINING CORPS

Washington University has programs in both Military Science (Army ROTC) and Aerospace Studies (Air Force ROTC). Curricula center around development of leadership and management skills. Students who successfully complete Army or Air Force ROTC receive—upon graduation—a Regular or Reserve Officer's commission in the respective service.

Active duty may be deferred until completion of graduate studies. ROTC students are eligible to compete for full-tuition scholarships.



OPPORTUNITIES OFF-CAMPUS & ABROAD

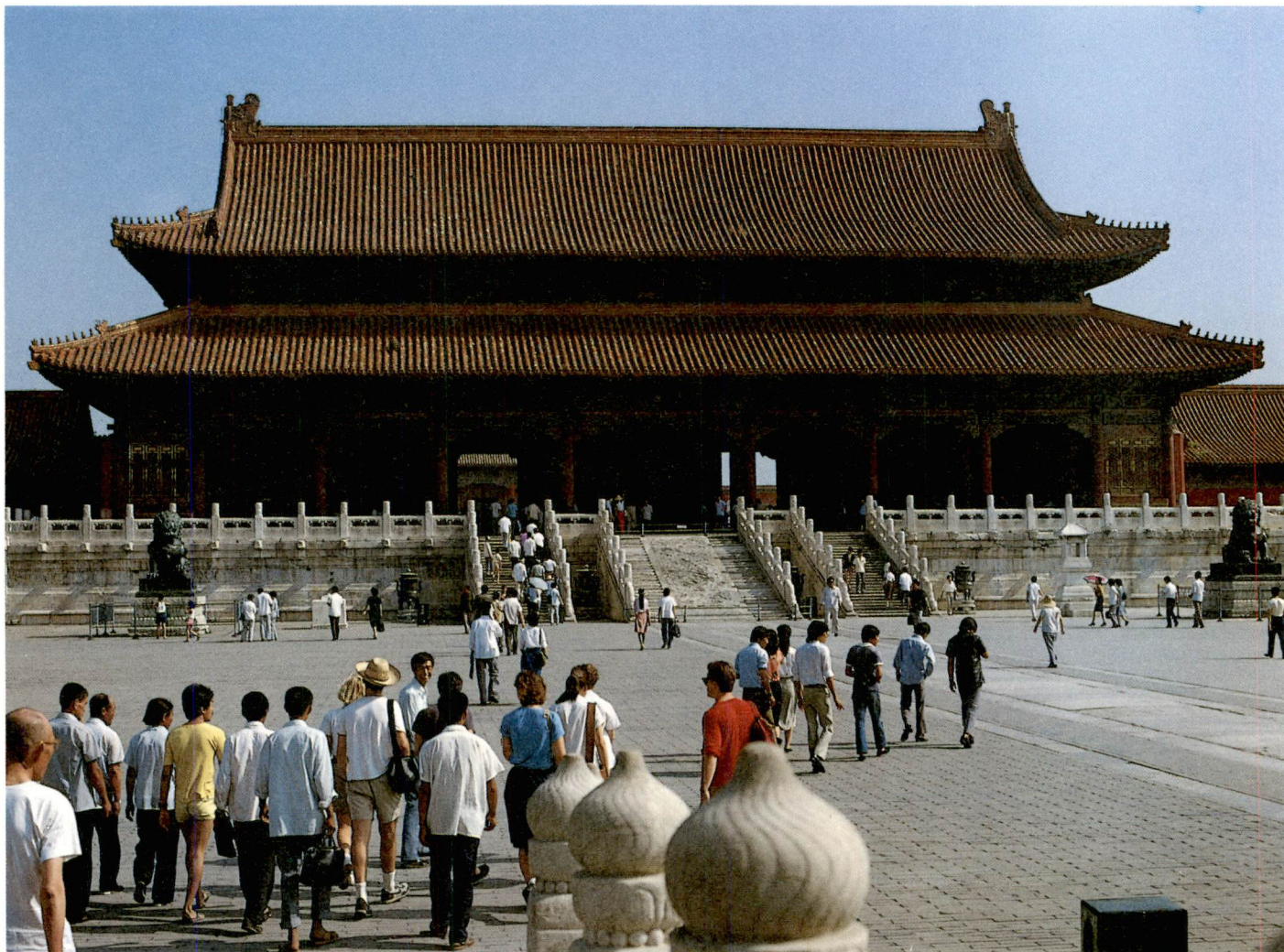
Washington maintains an extensive list of opportunities for internships and study abroad. Although certain programs are designed for students concentrating in specific areas, others are open to any qualified students who are eager to experience a foreign culture at first hand, immerse themselves in a language, or put classroom lessons to the test in professional situations. Each year 65 to 70 students participate in one of these programs. The University will also approve programs under the auspices of other institutions, but financial aid received through our Financial Aid Office may only be applied to programs sponsored by Washington University.

Year-long Programs for Students Proficient in a Foreign Language

These programs are usually undertaken in the junior year. In most programs students enroll directly in the host country's university, choosing from all the courses it offers. Housing arrangements vary—students may reside in dormitories, share apartments, or live in private homes. Some of Washington's programs are exchanges, in which undergraduates, graduate students, or faculty join the Washington community for a year, while our students enjoy a stay at their home institution. The success of these programs reflects the sound preparation students receive in our language departments.

Washington sends students to:

- France, for a year's study at the University of Caen: the program begins with six weeks in Paris for intensive language study and a course in French culture and civilization.
- Spain, for a year's study at the University of Salamanca: the program includes a four-week orientation in Madrid and several group excursions during the year.
- Germany, for a year's study at the University of Tübingen, while German graduate students and faculty join the Washington community;
- Japan, for a year's study at Waseda University in Tokyo. Students live with a Japanese family. A Japanese undergraduate studies at Washington in exchange.



Students from Washington's program in China join sightseers in front of the Imperial Palace in Beijing.

- China, in a cooperative program with Duke University. Students, who must have completed a minimum of one year of study of Chinese, undergo intensive language study in an eight-week summer program at Beijing Teachers College before their semester of studies at Nanjing University. They live in dormitories with Chinese students and are taught by Chinese faculty and the resident director from one of the participating U.S. universities.
- Israel, at the Rothberg School for Overseas Students of Hebrew University in Jerusalem. This program is primarily for students of Jewish and Near Eastern Studies. Classes are taught in English and Hebrew.

Year-long Programs for Students of Other Disciplines

England: For undergraduates who would like to study in England, Washington has a program at the University of Sussex and an exchange program with the University of East Anglia. These programs attract students whose majors range from art history to science.

An exchange program with University College London was created specifically for anthropology students. Students, usually juniors, enroll in the classes of this distinguished College and have the opportunity to explore ancient and medieval British sites.

France: The School of Engineering and Applied Science has an exchange program with the Institut National des Sciences Appliquées (INSA) in Lyon, France. Students in their junior year who are fluent in French are able to combine their engineering studies in regularly scheduled classes with a sojourn abroad.

Greece: The College Year in Athens program draws primarily students of classics and ancient studies as well as students of other areas of the humanities and the social sciences. Modern Greek is offered; all other classes are in English.

Internships for Students Who Wish a Work Experience Off-campus or Abroad

Washington, D.C.: The Washington Semester program is open to any student whose interests and career goals would benefit from seeing the processes of American government in action. Administered by the Center for the Study of Public Affairs in the Department of Political Science, this internship is particularly useful for students of government and business. The Washington Center makes



the arrangements, and has placed students in positions with the Kennedy Center for the Arts, Federal Communications Commission, Department of the Treasury, and Smithsonian Institution.

International Internship Program in England: This study/work experience in England is open only to business undergraduates, usually in their senior year. Academic preparation begins in midsummer in London or Manchester, after which students are placed for three-and-a-half-month internships, tailored to the students' career goals, with firms in Bath or Bristol. Students are assigned diverse and challenging positions. Recent examples include being a financial analyst with a venture capital firm or a marketing representative for the Bristol Old Vic Theatre.

Business Internship in France: Students spend the first semester studying in Paris at the Ecole Européenne des Affaires, followed by a semester's internship, chosen to complement the students' own interests or career plans, with such companies as Exxon, Credit Lyonnais, and Franco-American firms. This program, offered through the College of Arts and Sciences, requires a number of

preliminary courses at Washington University in both the French department and the business school, and is of most value to students who wish to combine studies in French and business.

Summer Programs for Language Students

German: Washington students enroll in an intensive course of study at the Goethe Institute in Göttingen, Germany. Students are eligible at all levels of German-language study.

Romance Languages: Six-week Summer Language Institutes are open to all Washington University undergraduates who have successfully completed one year of the language. In Europe, students will continue their language study, take courses on culture and civilization, and complete an independent research project, under the guidance of Washington University professors. The Institutes are located in:

- France, at Château de la Hercherie in the Loire Valley;
- Spain, at the Instituto Nacional in Madrid; and
- Italy, at a Franciscan monastery in Arezzo.

Graduate & Professional Schools

THE SCHOOL OF MEDICINE

The School of Medicine offers a four-year curriculum leading to the degree of Doctor of Medicine, as well as a combined program leading to the Ph.D. degree. Students are eligible to enter the School after the completion of three years' required studies in college, but most successful applicants present an A.B. degree. The Scholars Program in Medicine offers provisional admission to 10 Washington University freshmen. The School also offers the Health Administration Program leading to an M.H.A. degree and the Program in Physical Therapy leading to the M.S. degree.

The Washington University Medical Center, made up of the School of Medicine, School of Dental Medicine, Barnes Hospital, and a number of other affiliated hospitals, is one of the nation's outstanding collections of clinical and research facilities. The school has approximately 750 professional and graduate students.

THE SCHOOL OF LAW

The School of Law, established in 1867, is the oldest law school west of the Mississippi. To be eligible as a candidate for the degree of Juris Doctor, applicants must have received an A.B. degree or the equivalent. The school also offers professional programs leading to the LL.M. degree.

The school has approximately 650 students. Law students may choose from a comprehensive curriculum with special emphasis on legal research and writing.

THE GEORGE WARREN BROWN SCHOOL OF SOCIAL WORK

The George Warren Brown School of Social Work offers preparation for leadership positions in social work. The curriculum leading to the Master of Social Work degree requires two years of study. Joint degrees with law, architecture, business, and educational counseling extend the study period. The Ph.D. in social work is also offered. The School has 200 students.

THE SCHOOL OF DENTAL MEDICINE

The curriculum of the School of Dental Medicine extends over four years and leads to the degree of Doctor of Dental Medicine. Predental requirements include specific courses in the sciences. A baccalaureate degree from an accredited college is preferred. Facilities include modern laboratories, clinics, an excellent library, and a Learning Resource Center for self-instructional courses, an integral part of the dental program. The curriculum, as well as individual courses, is subject to ongoing evaluation by both faculty and students. Eighty-five students are accepted each year into the freshman class.



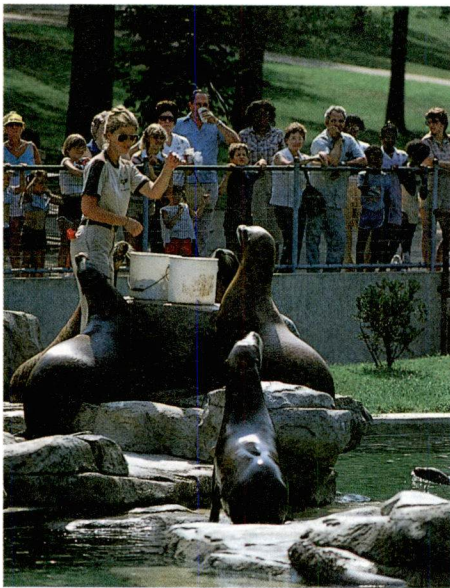
Washington University Medical Center



Jim Trotter © 1988

The Hilltop Campus & St. Louis

Washington University's Hilltop Campus faces the western edge of St. Louis' Forest Park. When Washington outgrew its original downtown home in the early 1900s, this site was the choice of the visionary chairman of the Board of Trustees, Robert Brookings; and the landscape architecture firm of Frederick Law Olmstead was asked to draw up the original site plans. What are now Brookings and Ridgley Halls, along with eight other University buildings, were completed in time to be leased to the 1904 World's Fair in Forest Park—rents from the Fair financed the cost of the further development of the Hilltop Campus. Later that year, the Olympic Games were held at Washington's Francis Field.



Top: A riverboat on the Mississippi at St. Louis; Above right: Milles Fountain and Union Station; Above: Feeding time at St. Louis Zoo.

The Gothic courtyards, arches, and gargoyles find their inspiration in the architecture of Oxford and Cambridge universities. As the University grew with the century, new buildings were constructed, some harmonious with the original Gothic concept (e.g. the business school's Simon Hall), some in striking contrast (e.g. Mallinckrodt Center).

UNIVERSITY CITY & CLAYTON

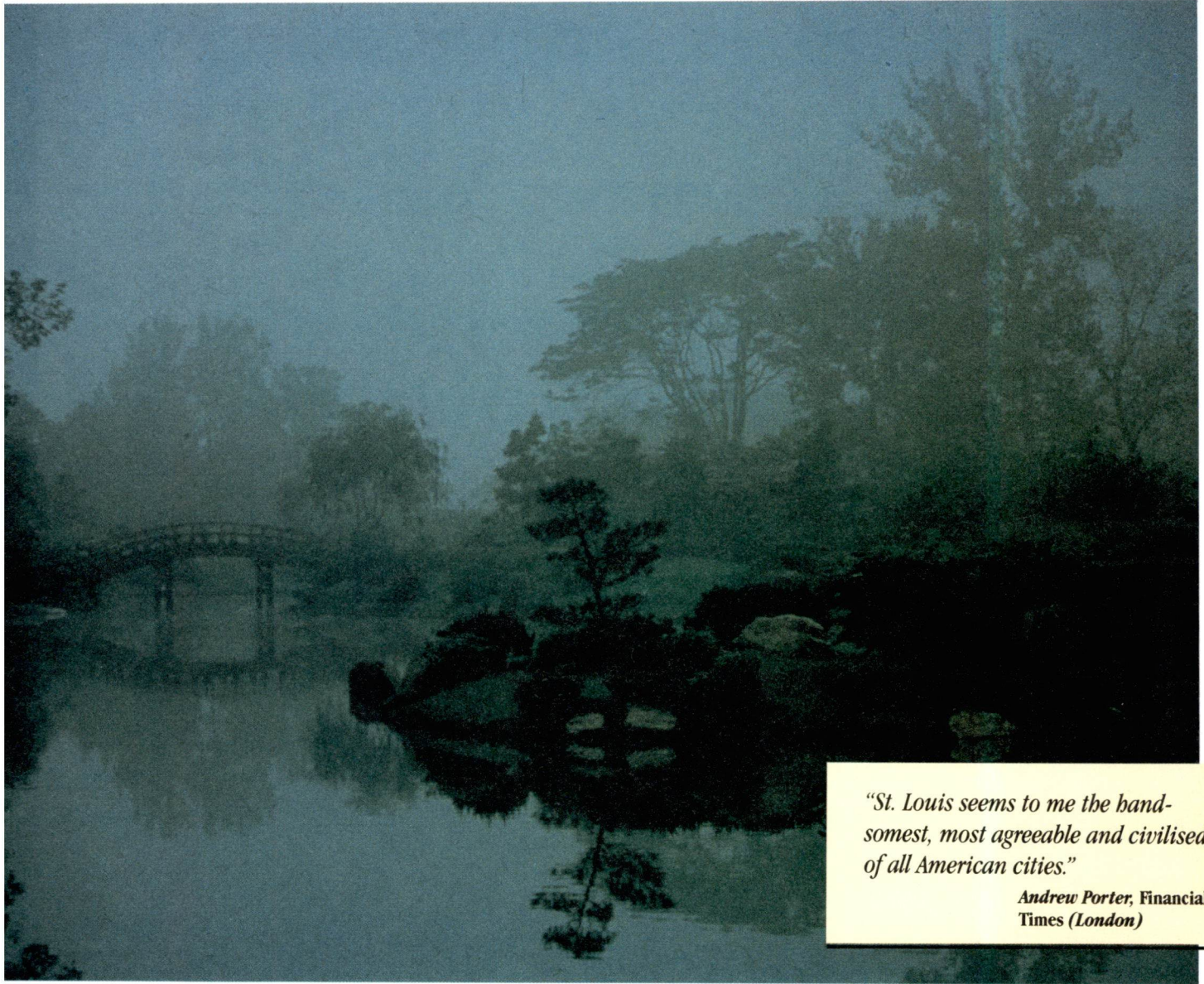
On the northern boundary of the campus is University City, a residential community. Through its Lion Gates lie tree-lined, quiet avenues and a bustling main street of specialty shops, ethnic restaurants, theatres, and a farmer's market. The Tivoli Theatre specializes in foreign and avant-garde films. The St. Louis Conservatory and Schools for the Arts and the Center of Contemporary Art have frequent recitals, exhibitions, and shows. Many of Washington's faculty, as well as teachers from four nearby universities, make their homes here. They find the intellectual and artistic atmosphere both congenial and cosmopolitan.

Clayton, bordering the Hilltop Campus to the west and south, has its own distinctive character: a surprising blend of elegant houses, skyscrapers, and fashionable shops. This is the business and

government center of St. Louis County, and 59 companies of the Forbes 500 have offices in those imposing towers. The proximity of this commercial center to the University is of great interest to our students.

FOREST PARK

The University's eastern door opens on the green vistas of Forest Park, 1,300 acres of gentle hills, lakes, and cultural institutions, extending to the Central West End and Washington's Medical Campus. Here our students join St. Louisans in golf on three courses, tennis (in a center named for the St. Louis champion who established the Davis Cup), handball, cricket, soccer, football, and baseball. There are lakes for boating in summer and rinks for skating in winter, bicycle paths, fitness trails, even an archery range. Forest Park is a popular spot for Sunday outings even on rainy and cloudy days. The St. Louis Art Museum in the park has recently reopened its west wing, providing a showcase for its important collection of German Expressionists. Also in the park, the Missouri Historical Society with its collection of Lindbergh memorabilia, the St. Louis Zoo, the Municipal Opera, and the St. Louis Science Center appeal to lovers of art, science, and fun.



“St. Louis seems to me the handsomest, most agreeable and civilised of all American cities.”

Andrew Porter, Financial Times (London)



Above: The Japanese Garden at the Missouri Botanical Garden in the early morning mists; Left: St. Louis Art Museum at night.

Frank Popper/Photographic Resources





CENTRAL WEST END

On Forest Park's eastern edge, is the Central West End, a neighborhood with a European flair. After a short shuttle ride from the Hilltop Campus to the Medical Campus, our students can poke about in shops and relax at sidewalk cafes. The Central West End is one of many areas where beautiful old homes and neighborhoods have undergone restoration and revitalization. This "urban renaissance" extends to downtown St. Louis and the riverfront as well.

DOWNTOWN

All of the population of the metropolitan area, almost two and a half million people, has supported the re-emergence of the downtown area as a commercial, entertainment, and historic center. The Old Post Office and Union Station and the ultramodern St. Louis Centre are showplaces for our spirit of renovation and innovation. The restored warehouses of Laclede's Landing on the riverfront have found new life as clubs where you can hear jazz, blues, or rock 'n' roll. In the shadow of the Arch, the riverboats that



inspired Edna Ferber to write *Showboat* are still moored. In Midtown, the restored Fox Theatre is as spectacular as the Broadway shows and concerts it presents, and Powell Hall is a fitting home for the acclaimed St. Louis Symphony Orchestra.

The St. Louis spirit must include sports. This has always been a baseball town, and fans line up early to get tickets to Cardinals' games at Busch Stadium downtown. The Blues of the National Hockey League are also very popular.

Facing page: Every Fourth of July, the VP Fair draws millions of visitors to St. Louis; Top: The Central West End district features restaurants and small specialty shops; Above: Missouri's many rivers are ideal for rafting, canoeing, and fishing.



Frank Oberle/Photographic Resources

Top: Busch Stadium is the home of the baseball Cardinals; Above: Anheuser-Busch's Clydesdales are a St. Louis favorite.

COUNTRYSIDE

St. Louis' exciting urban center is surrounded by the rolling Missouri countryside. The University's Outing Club organizes trips for students, who wish to climb in the Ozarks, float the rivers, or join the canoe regatta.

The wilderness of the Ozarks and towers of Chicago or New York can be reached in only an hour or two of travel. St. Louis' location in the heart of the nation allows our students easy access by air to both coasts, and to cities in between. Even trains (and boats!) still stop here. So our students, after exploring the surrounding neighborhoods and downtown of this gateway city, find it equally easy to reach home.



Student Life

ACTIVITIES

Life beyond the classroom is just as exciting as that within. Whether you join a college preprofessional organization, play a sport, volunteer your time to a worthy cause, or take in the daily Filmboard offerings, you will come to value these great new experiences.

You may want to take an active part in student government by joining the Congress of the South Forty, the student resi-

dence hall organization, or the Student Union, the campus-wide student governing body. The Student Union not only plans activities, but also is vitally involved in major issues reflecting students' concerns. Students are also appointed to serve on University policy-making committees. Each year two student representatives are selected to attend meetings of the Board of Trustees.

There are also opportunities for you to hone your communication skills. *Stu-*

dent Life, the award-winning, independent campus newspaper, is published twice a week and is staffed completely by undergraduates, as is KWUR, the campus FM radio station, with more than 100 student disc jockeys and a student executive staff. Other creative publications include *The Eliot Review*, a literary journal, and *The Scene*, a magazine featuring interviews with interesting students and faculty.



Above: Washington University's Pikers perform at many events during the year; Top right: Homecoming is a lively weekend in the fall; Far right: Airband performances challenge students' creativity in lip synching and costuming; Bottom right: Thurtene Carnival, held each April, is the largest and oldest student-run fair in the nation.

Other campus groups are devoted to community service, religious observation, political activity, ethnic and minority concerns, and social events. About 30 percent of our students participate in the Greek system of 13 fraternities and seven sororities, which provides its own opportunities for leadership and service. The Special Olympics is one such annual event. Each year, hundreds of volunteers from the Washington student community join an ever greater number of special athletes in this worthwhile weekend of sports.

Beyond these organized groups and activities, there are always traditional events from which to choose. You might want to see one of the films presented by the student-run Filmboard—four different movies are shown each week—or check out the Gargoyle on Wednesday evenings for the coffeehouse or Thursday evenings for dancing to anything from live bands to disc jockeys. You should watch the kiosks and South Forty underpass walls for the latest notices of musical performances and campus-wide parties.

The more than 200 campus clubs and organizations are assisted by the Office

of Student Activities, which provides advisors and services for both traditional campus activities and for fledgling ones. With its support, students plan concerts, movies, and parties, and sponsor well-known speakers or special events. It also provides a leadership development series to enhance skills and provide a forum for the discussion of campus leadership issues.

Every Wednesday a major speaker appears in Graham Chapel as part of the University-sponsored Assembly Series. Last year's guests ranged from columnist William Safire and radio host Susan Stamberg to Nobel Peace Prize winner Adolfo Perez Esquivel and Helen Suzman, member of the South African parliament. These lectures command a city-wide audience, as do the national road company productions in the Edison Theatre in Mallinckrodt Center.

Besides department speakers and colloquia, each school has its own calendar of special events. The business students raise funds for the Girls Club of St. Louis on Casino Night. Foreign Language Week attracts language-lovers from all over the metropolitan area to plays, exhibitions, speakers, and movies, sponsored by



the language departments. During Engineers' Weekend, engineering students compete in the infamous "egg drop" at Shepley Hall.

Washington also has its social traditions. One evening each fall and spring the Quadrangle becomes an open-air theatre with movies, rock music, and a barbecue. Fiesta Latina, Airband, Homecoming, Mardi Gras, and Parents' Weekend keep fall and winter weekends hopping. In April, Thurtene Carnival draws thousands from the University and neighboring communities for games, rides, skits, and refreshments. Profits from this, the nation's oldest and largest student-sponsored fair, are donated to a different charity every year.

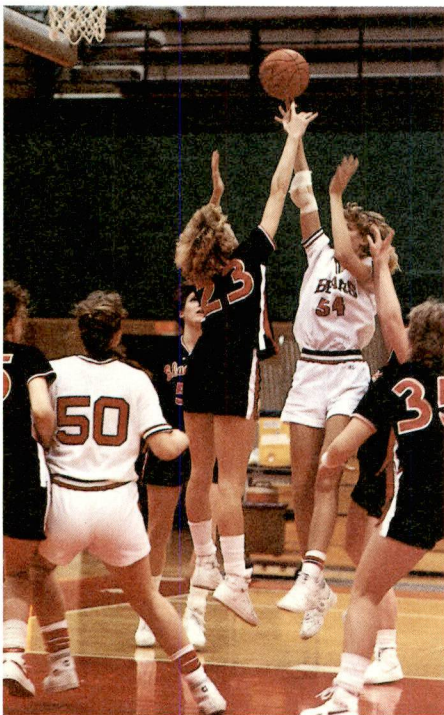
Washington University social life is alive and well. Band parties, mixers, formals, study-dates, concerts, plays, and athletic events are all exciting chances to meet people, make friends, and enjoy college life. Our students are energetic and enthusiastic. In the end, it is the students themselves who make the University as interesting and challenging socially as it is academically.

Your choice of diversions is not restricted to the campus. St. Louis has much to offer. The Student-Faculty Interaction Committee of the College brings together professors and students for trips to the St. Louis Symphony and local jazz clubs. The Residential Life Center sponsors regular visits to metropolitan restaurants to sample ethnic cuisines. You might wish to volunteer your time for a worthwhile cause. Many students tutor high school students, help out in kindergartens, or work in shelters for the homeless.





Above: A Bears soccer game is played at historic Francis Field against a backdrop of the old and the new—historic Francis Gymnasium and the recently completed, state-of-the-art Athletic Complex.



INTERCOLLEGIATE, INTRAMURAL, & CLUB SPORTS

Sports and athletics play an important part in the Washington community. There is an opportunity for everyone to participate: club and intramural sports for the enthusiast, intercollegiate competition for the more serious athlete, and one of the finest sports complexes in the country.

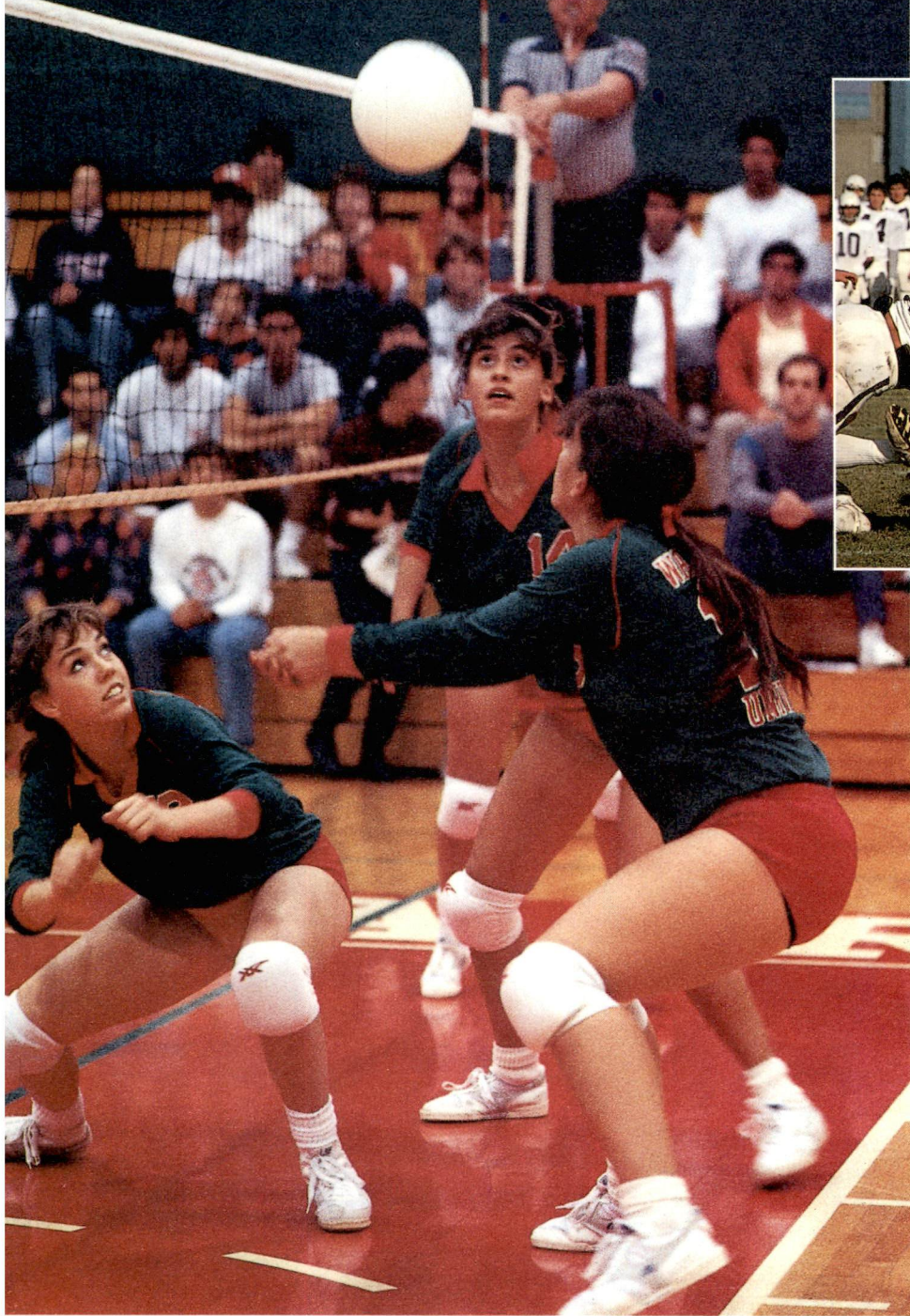
1987-88 was the inaugural year for the University Athletic Association (UAA), of which Washington is a founding member. The other members are NCAA Division III teams from Brandeis, Carnegie Mellon, Case Western Reserve, Chicago, Emory, Johns Hopkins, New York, and Rochester universities. In all these private, metropolitan institutions, the emphasis is on the student-athlete, who excels in the classroom and on the playing field. (We do not give athletic scholarships, though our scholar-athletes are eligible for financial aid on the same basis as other students.) UAA teams com-

pete in all 15 intercollegiate sports, sometimes in round-robin tournaments. In addition, our Lopata Basketball Classic, "the Brain Bowl," brings in teams such as those from MIT, Amherst, and Swarthmore to the Washington campus.

In addition to intercollegiate competition, more than 4,000 faculty, staff, and students enjoy sports through the intramural program or the Sports Club Federation. Popular club sports run the gamut from ice hockey, rugby, and women's soccer to frisbee and lacrosse. Students recently formed a crew team, which participated in the National Regatta of the U.S. Rowing Association in its first year and swept the competition in the second annual Washington University Crew Classic in the spring of 1988.

Facilities

The University's new athletic complex provides exceptional facilities for both indoor and outdoor sports. It includes gymnasiums; indoor and outdoor tracks; two weight rooms; tennis, handball, racquetball, and squash courts; and a



Washington's Intercollegiate Sports

Washington fields teams in nine men's and six women's intercollegiate sports:

—men compete in baseball, basketball, cross country, football, golf, soccer, swimming/diving, tennis, and track,

—women compete in basketball, cross country, swimming/diving, tennis, track, and volleyball.

The 1987-88 season was an exciting and successful one for Washington's athletes. Among their accomplishments were:

—UAA conference championships in men's soccer, basketball, indoor and outdoor track, and in women's volleyball and basketball

—second place in the nation for the men's soccer team in NCAA Division III

—All-America honors for two women and six men

—Academic All-America honors for three men in basketball, football, and golf

—a national championship in the men's 200-meter dash

—men's soccer, men's and women's basketball, and women's volleyball teams all advanced to NCAA Division III post-season tournaments, the men's basketball team winning the regional championship.

HOUSING & RESIDENTIAL LIFE

Washington University's "South Forty," the residence hall area, is located on the western edge of the Hilltop Campus, only a few minutes' walk from the student union, libraries, and classrooms. The 14 modern dormitories house about 2,000 students in singles, doubles, or suites of six to eight. The halls are all co-educational, suites all single-sex. While freshmen from outside the St. Louis metropolitan area are required to live in the residence halls, many local students choose to do so as well. After your freshman year, you may wish to join one of the special interest suites or floors, such as engineering or foreign languages.

25-meter swimming pool with diving well. In addition, historic Francis Gymnasium and the football stadium, the site of the 1904 Olympics—the first held in the Western Hemisphere—have been carefully restored and renovated. The stadium now boasts a 400-meter synthetic surface track. The baseball and intramural fields in the South Forty residence hall area are also put to good use by students.

There is always time for impromptu games of touch football with dormmates, a few tosses of the frisbee between friends, or an early morning lap around the track. Not all of your time will be spent in the library and the lab!



The heart of the South Forty is Wohl Center. It has several dining areas, game and meeting rooms, lounges, snack bar, and a grocery. With Washington's flexible meal card system and wide choice in dining facilities, you will not find yourself racing back to the South Forty for lunch, unless you are meeting a friend. Simply presenting the meal card will get you sandwiches at the Student Center's deli and coffee house, a more substantial meal at its cafeteria, or pizza and burgers at the nearby Umrathskeller, popularly known as "The Rat." Holmes Lounge in

historic Ridgley Hall was once the University library and is now a favorite spot for students and faculty to meet for coffee and a chat.

Some students choose a new housing experience after their freshman year. For fraternity members, the 10 on-campus fraternity houses provide another living option. The University's housing office helps students rent apartments in University-run complexes such as the historic and newly renovated DeBaliviere Place and the more modern Millbrook Square, or find reasonably priced apartments, widely available in the residential

neighborhoods surrounding the campus.

The best thing about living in the dormitories is that there is always something to do. Resident advisors and the Congress of the South Forty work together to plan activities for the students. Popular activities include the South Forty formal, faculty/student dinners, time management workshops, gathering to listen to the Chancellor spin his famous bedside stories, and even sledding down hills on cafeteria trays. You won't have problems finding friends to take those much needed study breaks with you.

Memories of your college years will be



Left: The dormitory area, known as the South 40, has high-rise and low-rise buildings with singles, doubles, and suites; Above: Each dormitory room reflects the personalities of its occupants.

Doctors are available during regular clinic hours, and specialists in surgery, dermatology, gynecology, and psychiatry are available on an appointment basis. An infirmary, open 24 hours a day, seven days a week, provides treatment for short-term illnesses when hospitalization is not necessary. Emergency care is available through the infirmary or the Emergency Room of Barnes Hospital.

Counseling

For many, the time spent in the University is one of increased self-awareness, stock-taking, and new directions. The Student Counseling Service offers personal counseling and programs to undergraduate and graduate students. Counseling, individually or in groups, is an opportunity to work on problem solving, decision making, personal definition, interpersonal relationships, and living with others. Programs help develop new understandings and skills for living in the University. The services are confidential and carry no additional fees.

The Career Center

The Career Center assists students with career development throughout their four years at the University and helps them find employment when they graduate. The Center works primarily with students in the College of Arts and Sciences and the schools of Fine Arts and Architecture. The schools of Business and Engineering also have placement offices.

As early as the freshman year, students may begin meeting with counselors in

the Career Center to begin their search for knowledge about themselves and the world of work. Through individualized counseling, workshops, computer guidance programs, and a comprehensive career resource library, students learn the process of career development.

The Career Center also provides students with opportunities for exploring the work world while they are in school. Local graduates come to campus frequently and speak to students about their chosen fields. An active network of more than 700 alumni throughout the world is available to advise students on careers. Internships, both in and out of St. Louis, provide students with valuable work experience. A computerized part-time job service gives students access to a wide range of employment options near campus. And a summer job program assists with a search for work during vacation.

The Career Center assists with the nuts and bolts of full-time job hunting, too. Students learn to write resumes, target job leads, collect references, and hone interviewing skills with the aid of videotaped feedback.

Student Educational Services Center

Student Educational Services (SES) provides a variety of services and resources for students who need or desire assistance in achieving academic success. The Learning Resource Center provides help in more efficient reading or writing and in developing study skills. Workshops on subjects ranging from test taking to math anxiety are regularly available.

International Student Services

The International Office assists students, scholars, and faculty members from other countries. In conjunction with the Office of Admissions and the Office of Engineering Student Services, it clears undergraduate international students for admission, issues visa documents, and handles other admission-related matters. The office conducts orientation for new students, offers courses in English as a Second Language, and provides cross-cultural counseling. It also arranges a variety of social, cultural, and recreational activities designed to foster international understanding and to enrich campus life.

The Washington University Host Family Program and the Cosmopolitan International Club (COSMO) coordinate their activities with the International Office staff.

of your roommates, dormmates, classmates, friends. The friendships that you make in the dorms your first year will often continue beyond your undergraduate years. As a Washington alumnus or alumna, you may have friends in many different professions, living throughout the United States and abroad.

STUDENT SERVICES

Health Service

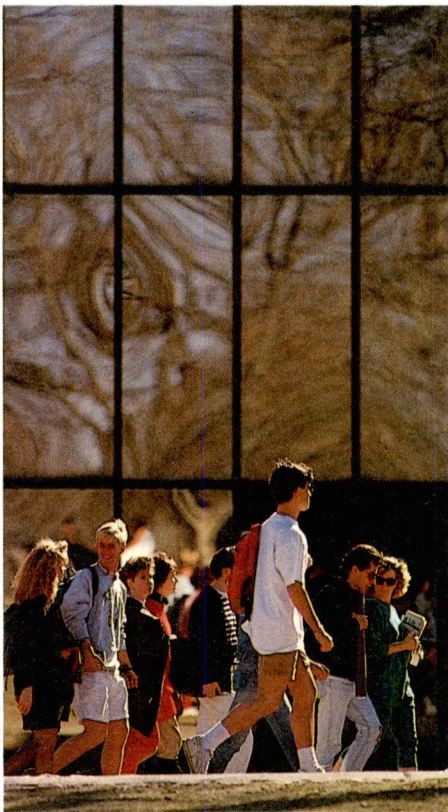
The Samuel B. Grant University Health Service affords immediate care and treatment during any illness that may occur while you are attending the University.

Admissions

FRESHMAN ADMISSION

Freshmen are admitted to the College of Arts and Sciences, the School of Architecture, the John M. Olin School of Business, the School of Engineering and Applied Science, and the School of Fine Arts. If you seek admission, you should submit Part I of the application for admission to the freshman class and a \$40 nonrefundable application fee to the Office of Admissions. Upon receipt of the application and fee, additional materials will be forwarded by the Office of Admissions. These will include Part II of the application, a "Teacher Recommendation" form, a "Mid-Year Report" form, and a "Secondary School Report," which should be given to your high school counselor—who will complete and return it to the Office of Admissions, along with an official transcript.

Either the Scholastic Aptitude Test (SAT) of the College Board or the American College Test (ACT) is required for admission. Achievement Tests are encouraged but not required. Junior year test results are acceptable. Primary consideration will be given to the highest scores, whenever they occurred.



It is recommended that students for whom English is a second language submit results from the TOEFL (Test of English as a Foreign Language). The test administered on January 14, 1989 will be the last one accepted for fall admission.

No video or audio tapes will be reviewed by the Admissions Committee.

Early Decision Plan

Students for whom Washington University is clearly the first college choice may apply under the Early Decision Plan. Early Decision applicants must submit Part I of the application by November 1 of the senior year. Part II of the application and all supporting materials must be postmarked by November 15. The Office of Admissions will send, with the second stage of the application, an affidavit form for the applicant's signature. This affidavit, required of all Early Decision applicants, confirms the understanding that the student admitted under this plan will attend Washington University and will submit a nonrefundable \$200 enrollment deposit by January 1. Admission decisions will be sent on December 1.

Information about financial aid requirements for Early Decision applicants who are applying for need-based financial aid can be found on page 54.

Regular Decision Plan

Regular decision applicants are encouraged to apply early in the senior year of high school. The deadline for Part I of the application is January 1. Part II of the application and all supporting materials must be postmarked by February 1 to ensure notification on April 1. Applications for admission are considered complete only when all supporting credentials have been received, including the results of either the SAT or ACT. Admitted students are asked to submit a \$200 nonrefundable enrollment deposit by May 1 in order to reserve a place in the freshman class.

Information about need-based financial aid can be found on page 54.

Spring Admission

All University divisions except the School of Architecture will admit beginning freshmen for the spring semester, on a space available basis. Applications for the semester which begins in January should be on file by December 1.

Admission to the Scholars Program in Medicine

Admission of freshmen to this limited program is decided by the Committee on Admissions of the School of Medicine. Consideration follows freshman admission and submission of supplementary application materials. The deadline for the Scholars Program in Medicine (SPIM) competition is January 15. An on-campus interview is required of finalists. The supplementary application materials are available from the Office of Admissions. Applicants for admission to the freshman classes of the College of Arts and Sciences and the School of Engineering and Applied Science are eligible to apply. SPIM applicants may not apply for any of the honorary scholarships or fellowships in the College of Arts and Sciences.

TRANSFER ADMISSION

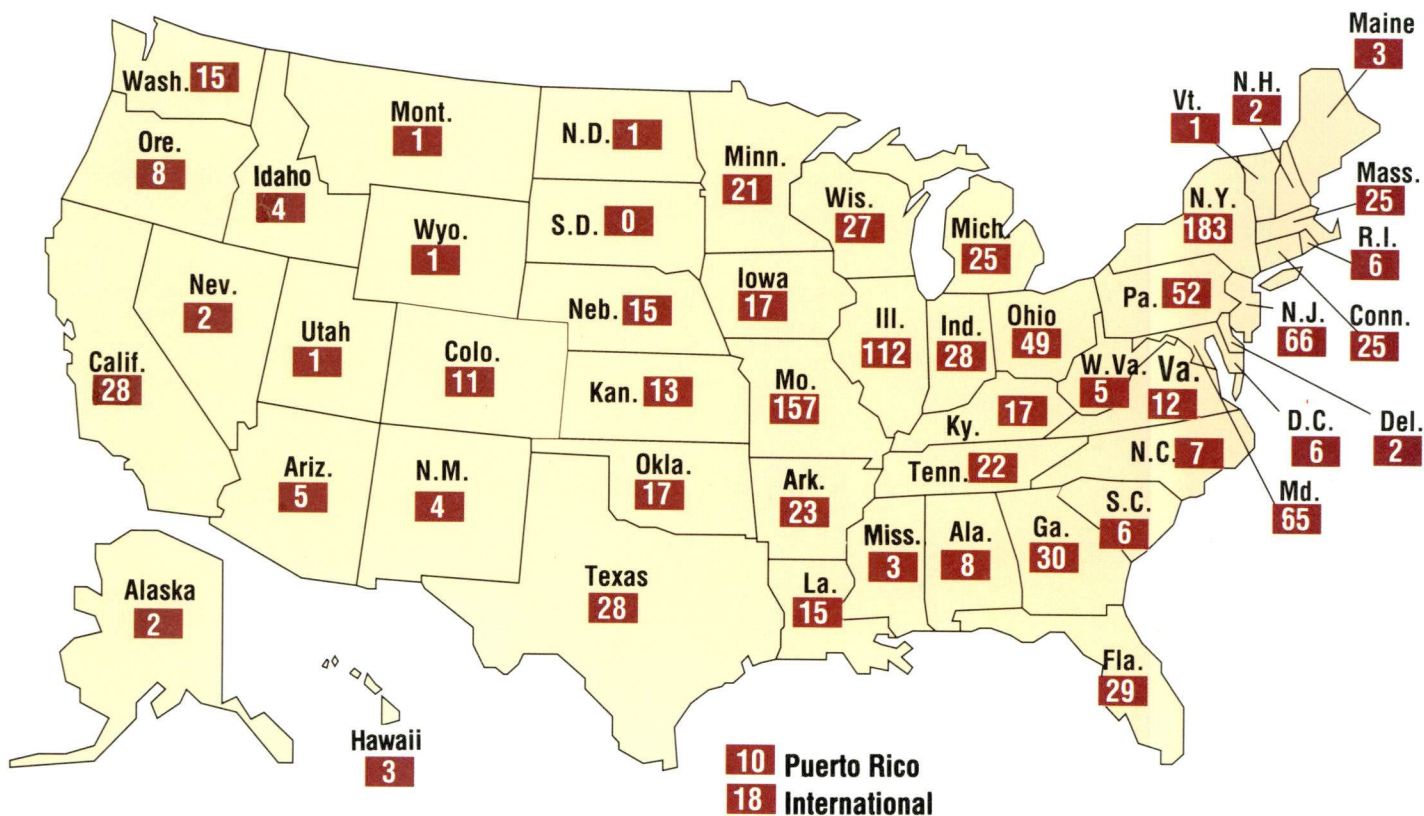
Students who have finished secondary school and some college study will be considered for transfer admission. Applications for transfer admission are accepted as early as one year in advance if the applicant is interested in entering the University at the outset of a fall semester. If the applicant seeks to enter in a spring semester, he or she is encouraged to apply no earlier than the beginning of the fall semester preceding the spring semester of interest. (*Note:* All undergraduate divisions of the University encourage applications for the spring semester, with the exception of the Program in Occupational Therapy. Students wishing spring admission consideration for the School of Architecture are asked to consult with the Office of Admissions before applying because of the specialized nature of the program.)

The application deadline for spring (January) admission is November 1; the deadline for fall admission is April 1. Check the instructions accompanying the Application for Transfer Admission for information about the notification calendar. A \$200 nonrefundable enrollment deposit will be required within one month after notification of admission.

GRADUATE ADMISSION

Students interested in admission to graduate study should write to the appropriate school or department.

Profile of the 1988 Freshman Class*



Each year the Committee on Admissions reviews the credentials of many more qualified applicants than there are places in the freshman class. Applicants are judged not only on the basis of their secondary school transcripts and standardized test results but also on their extracurricular activities, special talents, strength of character, and personalities.

In order to help you determine if you might meet the academic requirements, the following statistics are provided, reflecting the level of achievement of the freshman class entering in the fall of 1988. You might be interested in knowing that this class comes from more than 800 different high schools, 49 states, and many foreign countries.

RANK IN CLASS

Top 10%	70.7%
20%	21.1%
30%	5.7%
40%	1.3%
Bottom 60%	1.2%

195 members of the class were not ranked. Includes both public and private schools.

S.A.T. SCORES

	Verbal	Math
Mean	572	646
Median	570	650

A.C.T. SCORES

	Composite
Mean	28
Median	28

*These figures are current as of May 10, 1988.

Fees & Financial Assistance

FEES

Tuition for the 1988-89 school year is \$12,450. Room and board in the residence halls average \$4,400. Additional costs for books and supplies will vary with the course of study. Personal expenses vary according to individual lifestyle.

Extensive financial aid is available, as indicated below. Washington University encourages and gives full consideration to applicants for admission and financial aid without respect to age, sex, race, handicap, color, creed, or national origin. University policies and programs are nondiscriminatory.

FINANCIAL ASSISTANCE

Several types of financial assistance are available to Washington University freshmen: 1) financial aid based on need; 2) honorary scholarships and fellowships based solely on academic merit; and 3) loans and other financing arrangements that do not necessarily require a demonstration of need. Applicants and their families may apply for all three kinds of aid simultaneously.

Aid Based on Need

Financial need is the difference between the cost of attending Washington University and the amount you and your family can contribute toward these costs. Extensive need-based financial aid is available at Washington University. More than 50 percent of all undergraduates receive aid. This aid is offered in some combination of scholarships, grants, long-term low-interest loans, and campus employment.

All awards are based on a careful review of each applicant's financial circumstances and academic credentials, and the availability of funds. Washington University is planning a continuation of its strong financial aid program in 1989-90.

Freshman scholarships and grants in 1988-89 ranged up to \$16,000, with the average being \$7,420. Many scholarships equal or exceed tuition. Most awards include a combination of scholarships and grants, loans, and employment and ranged up to \$18,000 in 1988-89.

Applicants for need-based aid should indicate this intention on the application

for admission. You and your parents should also complete the Financial Aid Form (FAF), a national application that is available in secondary school guidance offices and college financial aid offices after November 1988.

The FAF cannot be filed before January 1, 1989. It should, however, be filed soon after January 1 and no later than February 15.

If your parents are not able to complete the FAF by February 15, or if you are an Early Decision applicant, Washington University's Family Financial Profile (FFP) can help you. This form is available upon request from Washington University's Financial Aid Office. The FFP, when submitted to the Financial Aid Office, can be the basis for a financial aid award from the University. The award is then confirmed upon submission of the FAF.

Applications received after published deadlines will be considered to the extent funds are available.

More details about financial aid application procedures for freshman applicants are provided with Part II of the ap-



plication for admission. If you or your parents want further information, write to the Financial Aid Office, 206 South Brookings Hall, Washington University, Campus Box 1041, One Brookings Drive, St. Louis, Missouri 63130.

Honorary Scholarships and Fellowships

Washington University recognizes outstanding achievement by awarding honorary scholarships and fellowships in eight competitions and programs. The College of Arts and Sciences, the School of Architecture, the John M. Olin School of Business, the School of Engineering and Applied Science, and the School of Fine Arts sponsor programs and award scholarships in amounts that vary from half tuition to full tuition plus a \$1,000 stipend, for each of the four years of undergraduate study.

Through the John B. Ervin Scholarships for Black Americans, up to 10 black applicants entering the University as freshmen will receive renewable scholarships of tuition plus a \$2,500 stipend.

The Program in Occupational Therapy sponsors the Occupational Therapy Merit Fellowship, for transfer students only. This award carries a value of full tuition for two years. These awards are given solely on the basis of merit; financial statements are not required.

Merit award applicants are expected to demonstrate superlative academic achievement in high school performance and aptitude tests, strong recommendations, and self-expression in a special essay. Finalists for freshman competitions are invited to the campus at University expense for the interviews that precede final selection. The deadline for submission of the separate honorary competition application is January 15. (Applicants for the honorary competitions in the College of Arts and Sciences may not apply for acceptance into the Scholars Program in Medicine.) The deadline for the Occupational Therapy fellowship is March 15. There is no separate application for the Dean's Scholarships in the John M. Olin School of Business.

Further information about any of the freshman honorary programs may be obtained by writing the Office of Admissions.



The dormitory area, the South 40

The honoraries are:

College of Arts & Sciences

Compton Fellowships—natural sciences or mathematics

Lien Scholarships—social sciences

Mylonas Scholarships—humanities

College Scholarships of half tuition to runners-up in the Compton, Mylonas, and Lien competitions

School of Architecture

Fitzgibbon Scholarship

John M. Olin School of Business

Dean's Scholarships

School of Engineering

Langsdorf/Woodward Fellowships

School of Fine Arts

Conway Scholarship

All Undergraduate Schools

John B. Ervin Scholarships for Black Americans

Guaranteed Student Loans

Guaranteed Student Loans (GSLs) are available in amounts of up to \$2,625 per year for freshman and sophomore students who demonstrate financial need within federal guidelines. The annual amounts increase to \$4,000 for juniors and seniors. No payment of interest or principal is required until after you leave school, at which time minimum monthly payments of \$50 begin. At that time, payments include interest at an annual rate of 8 percent. The interest rate shifts to 10 percent four years after repayment has begun. Payment can extend over 10 years.

Cost Stabilization Plan

The Cost Stabilization Plan (CSP) allows parents to purchase all four undergraduate years of University charges at the first-year rate. CSP can be used to cover all charges (tuition, room, and board), or it can be used in conjunction with financial aid awards to cover a portion of the charges.

The CSP benefit can be prepaid or it can be financed through the University. For those who finance, the installment option will have a low, fixed interest rate and can be repaid in equal monthly installments over as many as 10 years. The 1988-89 interest rate was 9.2 percent. If tuition, room, and board charges were financed, the monthly payment in 1988-89 was approximately \$869 for parents who chose to repay over a 10-year period.

Loans to Parents and Installment Billing

PLUS Loans are federally regulated loans for parents in amounts up to \$4,000 per year. No demonstration of financial need is required. The interest rate is variable, set annually, and capped at a maximum of 12 percent. The minimum repayments are \$50 per month.

Several monthly payment plans allow your family to pay the yearly University bill in monthly installments instead of two lump sums. More information about these plans will be provided to admitted applicants.



The Duncker Hall arch

VISITING THE CAMPUS

We encourage students and their families to visit our campus and to find out as much as possible about us. To that end, we offer Group Information Sessions, campus tours, overnight stays, and special visit weekends. Appointments may be made by writing or telephoning the Office of Admissions. If you are interested in engineering, you should contact the Office of Engineering Student Services.

Group Sessions

Group Information Sessions for prospective freshmen are conducted at 10:00 a.m. and 1:30 p.m. Monday through Friday from September through January, and at 9:30 a.m. and 11:00 a.m. on Saturdays from September 10 through December 17. There will be no Group Sessions held during the months of February and March. In April, Group Information Sessions for high school juniors will resume, but admitted students will be able to request an individual interview.

Transfer applicants should request an individual interview. All applicants to the School of Fine Arts may request an individual portfolio review. This review must take place by February 1.

Campus Tours

Student-led tours are conducted at 11:00 a.m. and 2:30 p.m. Monday through Friday during much of the academic year, and at 10:30 a.m. and noon on Saturdays from September 10 through December 10 and during the month of April. In the summer a tour is offered at 11:00 a.m. Monday through Friday.

Overnight Stays

With two weeks notice (and on a first-come, first-served basis), the Office of Admissions can arrange an overnight stay in a residence hall with a current student. These overnight stays are for one night only, and are available Sunday night through Thursday night from September 25 to December 8, and from February 2 to April 20.

Special Visit Weekends

In October and in April, special two-day visit weekends are held. On these weekends you can stay with a current student in the residence halls, eat in the dining halls, attend classes, and meet students and faculty members. If you have expressed interest in Washington, you will be notified of these weekends. In addition, there is a summer weekend visiting program, which combines a visit to St. Louis with a visit to Washington University.

CAMPUS ADDRESSES & PHONE NUMBERS

For information regarding admission and/or need-based financial aid, contact:

Office of Admissions

Washington University
Campus Box 1089
One Brookings Drive
St. Louis, Missouri 63130
(314) 889-6000, or
1-800-582-0700 (within Missouri), or
1-800-638-0700 (outside Missouri)

Office of Engineering Student Services

(for students interested in Engineering programs)
Washington University
Campus Box 1164
One Brookings Drive
St. Louis, Missouri 63130
(314) 889-6130

Office of Financial Aid

Washington University
Campus Box 1041
One Brookings Drive
St. Louis, Missouri 63130
(314) 889-5900



Application for Freshman Admission in 1989

PART I

Deadline: Postmarked by January 1.

Please attach the \$40 application fee. Type or print your responses to the following.

Have you previously filed an application for admission to any of the full-time, degree-granting day divisions of the University?
 Yes No If yes, for which year? _____

1. For which term are you applying? Fall 1989 Spring 1989

2. Social Security Number (Required for processing):

--	--	--

--	--

--	--	--	--	--	--

3. Male Female

4. Name _____
Last Name First Name Middle Name Name you prefer to be called

5. Mailing Address _____
Street City and State Zip Code Until what date? _____

Home Address (if different) _____
Street City and State Zip Code

6. Telephone number _____
(Area Code) Number Home phone (if different) _____
(Area Code) Number

7. Date of birth _____
Month/Day/Year Place of birth _____
City State

8. Are you a U.S. citizen? Yes No If no, are you a Permanent Resident? Yes No

9. Washington University is required to provide, for federal reporting purposes, the following racial/ethnic information. Check one:

- Black—Non-Hispanic Origin American Indian or Native Alaskan Asian or Pacific Islander
- Hispanic Non-Resident Alien White—Non-Hispanic Origin

10. Do you live within 25 miles of Washington University? Yes No

11. Check **one** school below which represents your *first* preference for admission consideration.

- A. College of Arts and Sciences
- B. School of Architecture
- C. John M. Olin School of Business
- D. School of Engineering and Applied Science
- E. School of Fine Arts (Studio Arts and Art Education)

NOTE: If you wish to indicate a *second* preference, please do so here:

Second Preference _____

12. Are you applying under the Early Decision Plan? Yes No (Deadline: Postmarked November 1. See Early Decision section on page 52.)

13. What academic area(s) are you most interested in pursuing while in college? _____

14. Indicate below the high school from which you will graduate: High school College Board/SAT code

--	--	--	--	--	--

_____ High School City and State Graduation Date

15. List all other high schools that you have attended, if applicable:

_____ High School City and State Dates Attended

_____ High School City and State Dates Attended

(over)

16. Washington University requires either the Scholastic Aptitude Test (SAT) or the American College Test (ACT) of all freshman applicants for admission. Please indicate which of these tests you will take or have taken:

SAT-Date: Oct. 1988 Other (Junior Year) _____ ACT-Date: Oct. 1988 Other (Junior Year) _____
 Nov. 1988 _____ Date(s) Dec. 1988 _____ Date(s)
 Dec. 1988 _____

17. Financial Aid. (All applicants must respond.)

A. Do you intend to apply for financial aid based on need? Yes No

(NOTE: Fall 1989 aid applicants must file both sides of the 1989-90 Financial Aid Form [FAF]; Spring 1989 applicants must file the 1988-89 Financial Aid Form.)

B. Are you applying for an Army ROTC Scholarship? Yes No An Air Force ROTC Scholarship? Yes No

C. If you wish to be considered for an academic scholarship, you must contact the Admissions Office by phone or separate letter for the appropriate application. **Requests for application materials must be received by December 29.**

18. A. Father's name _____ Living? _____
Last First Middle
Father's home address _____
Street City and State Zip Code
Occupation or title, and employer _____
College or University, if any _____ Degree earned _____

B. Mother's name _____ Living? _____
Last First Middle
Mother's home address _____
Street City and State Zip Code
Occupation or title, and employer _____
College or University, if any _____ Degree earned _____

C. Please indicate the person(s) to whom University correspondence (information about tuition and fees, payment options, etc.) should be addressed:

Mr.

Ms.

Mr. and Mrs.

Mailing address _____
Street City and State Zip Code

19. List brothers and/or sisters who are attending or who have graduated from Washington University.

Name	Dates Attended	Degree(s)
_____	_____	_____
_____	_____	_____

20. Athletics (Optional):

A. Did you participate in varsity athletics in high school? Yes No

Which sport(s)? _____

B. Are you interested in competing in varsity athletics in college? Yes No

Which sport(s)? _____

C. Height _____ Weight _____

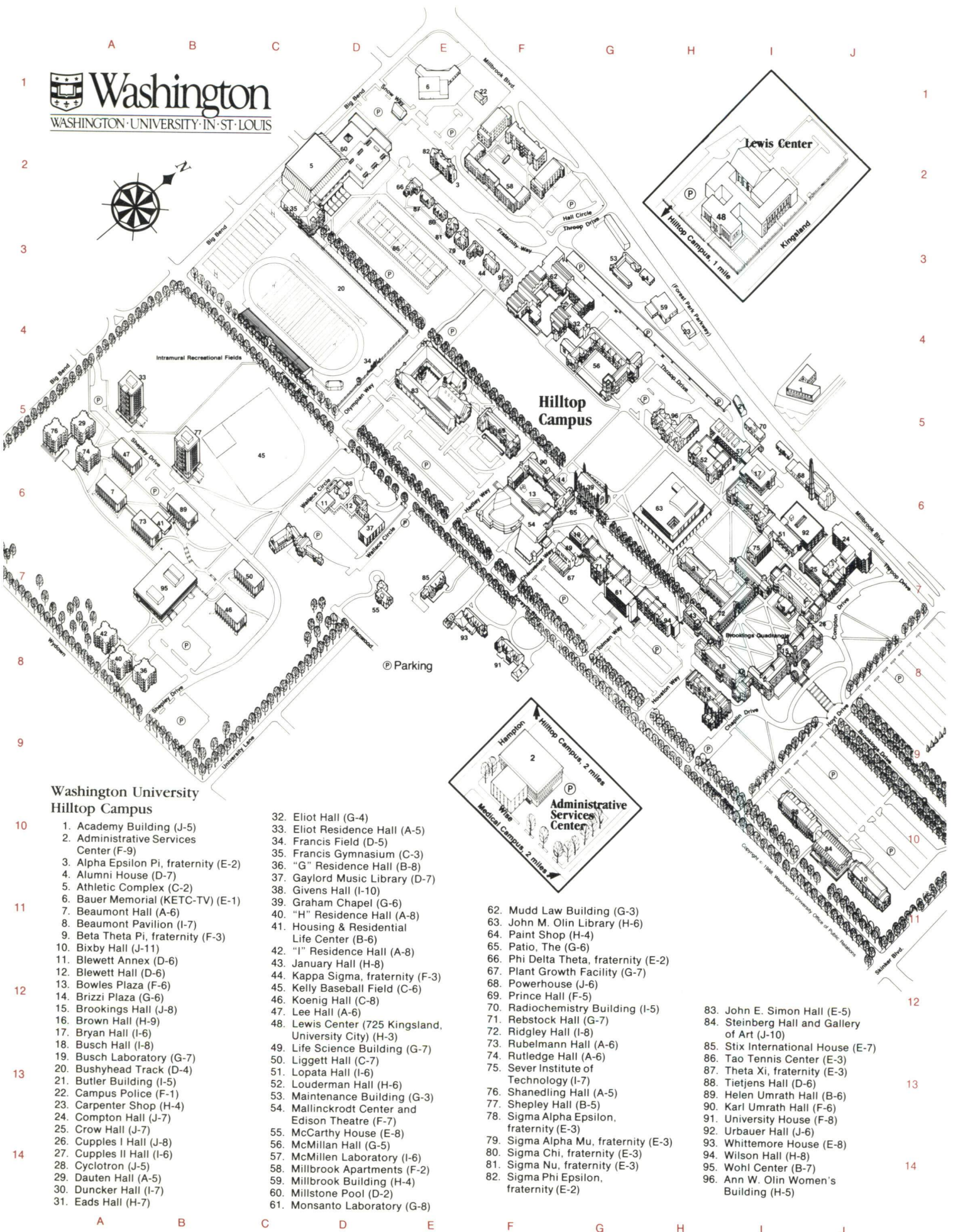
The undersigned certifies that the information contained herein is true, complete, and correct.

Signature of Applicant _____ Date _____

This form, together with the nonrefundable Application Fee of \$40, is to be returned by the applicant in the envelope provided, to: Office of Admissions, Washington University, Campus Box 1089, One Brookings Drive, St. Louis, Missouri 63130.

Upon receipt of Part I and the application fee, Part II of the application will be sent to you within two weeks.

Washington University encourages application from, and gives full consideration to, all candidates for admission and financial aid without respect to age, sex, handicap, race, color, creed, or national origin. University policies and programs are nondiscriminatory.



**Washington University
Hilltop Campus**

1. Academy Building (J-5)
2. Administrative Services Center (F-9)
3. Alpha Epsilon Pi, fraternity (E-2)
4. Alumni House (D-7)
5. Athletic Complex (C-2)
6. Bauer Memorial (KETC-TV) (E-1)
7. Beaumont Hall (A-6)
8. Beaumont Pavilion (I-7)
9. Beta Theta Pi, fraternity (F-3)
10. Bixby Hall (J-11)
11. Blewett Annex (D-6)
12. Blewett Hall (D-6)
13. Bowles Plaza (F-6)
14. Brizzi Plaza (G-6)
15. Brookings Hall (J-8)
16. Brown Hall (H-9)
17. Bryan Hall (I-6)
18. Busch Hall (I-8)
19. Busch Laboratory (G-7)
20. Bushyhead Track (D-4)
21. Butler Building (I-5)
22. Campus Police (F-1)
23. Carpenter Shop (H-4)
24. Compton Hall (J-7)
25. Crow Hall (J-7)
26. Cupples I Hall (J-8)
27. Cupples II Hall (I-6)
28. Cyclotron (J-5)
29. Dauten Hall (A-5)
30. Duncker Hall (I-7)
31. Eads Hall (H-7)

32. Eliot Hall (G-4)
33. Eliot Residence Hall (A-5)
34. Francis Field (D-5)
35. Francis Gymnasium (C-3)
36. "G" Residence Hall (B-8)
37. Gaylord Music Library (D-7)
38. Givens Hall (I-10)
39. Graham Chapel (G-6)
40. "H" Residence Hall (A-8)
41. Housing & Residential Life Center (B-6)
42. "I" Residence Hall (A-8)
43. January Hall (H-8)
44. Kappa Sigma, fraternity (F-3)
45. Kelly Baseball Field (C-6)
46. Koening Hall (C-8)
47. Lee Hall (A-6)
48. Lewis Center (725 Kingsland, University City) (H-3)
49. Life Science Building (G-7)
50. Liggett Hall (C-7)
51. Lopata Hall (I-6)
52. Louderman Hall (H-6)
53. Maintenance Building (G-3)
54. Mallinckrodt Center and Edison Theatre (F-7)
55. McCarthy House (E-8)
56. McMillan Hall (G-5)
57. McMillen Laboratory (I-6)
58. Millbrook Apartments (F-2)
59. Millbrook Building (H-4)
60. Millstone Pool (D-2)
61. Monsanto Laboratory (G-8)

62. Mudd Law Building (G-3)
63. John M. Olin Library (H-6)
64. Paint Shop (H-4)
65. Patio, The (G-6)
66. Phi Delta Theta, fraternity (E-2)
67. Plant Growth Facility (G-7)
68. Powerhouse (J-6)
69. Prince Hall (F-5)
70. Radiochemistry Building (I-5)
71. Rebstock Hall (G-7)
72. Ridgley Hall (I-8)
73. Rubelmann Hall (A-6)
74. Rutledge Hall (A-6)
75. Sever Institute of Technology (I-7)
76. Shanedling Hall (A-5)
77. Shepley Hall (B-5)
78. Sigma Alpha Epsilon, fraternity (E-3)
79. Sigma Alpha Mu, fraternity (E-3)
80. Sigma Chi, fraternity (E-3)
81. Sigma Nu, fraternity (E-3)
82. Sigma Phi Epsilon, fraternity (E-2)

83. John E. Simon Hall (E-5)
84. Steinberg Hall and Gallery of Art (J-10)
85. Stix International House (E-7)
86. Tao Tennis Center (E-3)
87. Theta Xi, fraternity (E-3)
88. Tietjens Hall (D-6)
89. Helen Umrath Hall (B-6)
90. Karl Umrath Hall (F-6)
91. University House (F-8)
92. Urbauer Hall (J-6)
93. Whittemore House (E-8)
94. Wilson Hall (H-8)
95. Wohl Center (B-7)
96. Ann W. Olin Women's Building (H-5)

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Bulletin of Washington University
One Brookings Drive
St. Louis, Missouri 63130
USPS: 078-340



M. Fredric Volkmann

Associate Vice Chancellor and
Director of Public Relations

Washington University
Campus Box 1070
One Brookings Drive
St. Louis, Missouri 63130
(314) 889-5230
(314) 726-4259 (FAX)
(314) 721-3703 (Home)

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George Washington - named after

1st Time Pres. visited

1st Olympics (1904) in U.S.

7 Univ. in US * in St. Louis*

NCAA no athletic scholarship

1/2 on fin. aid \$10,000 avg.

Active varsity

→ men. + women

Nat'l rated top ten Bsktball + soccer

Nobel laureate Wash. Univ. Bears

↑
not this
yr.

Murray Wendenbaum - Reagan

approx 12% min.

6% Black

~~_____~~
Umratz Hall - Student Services

Omratz Skeller > Student Lounges

Holmes Lounge

Wohl Center - Student Eating facilitate

blwn
ISM
-889-5040

(314) 889-5261
721-3703 - Home

asketball Team is terrific

Fri. nite is grudge match against
Emory at Emory in Atlanta for
League Championship

pring Break is March 12th

ill Top Campus

- Culp + Stewart designed campus
bldgs. also did Princeton (Baker's
alma mat.) Brookings (St. L) +
Blair Hall (Princeton) almost
identical.
- World Fair + Olympics rented
campus for 1 yr - rented funded
add'l bldgs
- Did not replace athletic (Olympic)
bldgs till 1985 660 yrd track
until recently

had a lot

lumi-

Clark Clifford - Sec. of Def.

William Webster - CIA Head

Harold Ramos - "Ghostbusters"

one of Hollywood's hottest writers

David Merrick - Broadway Prod.

A.E. Hochner - partner w/ Paul Newman
in salad dressing

Phylis Shafely - cons. female leader
not pop. w/ students

Tennessee Williams attended

T.S. Elliot's Grandfather founded Univ.
(William ~~Greene~~ Greenleaf)

Washington University

Summer 1938

Magazine



Francis Field,

Site of America's First Olympics

Francis

Field

BY JOHN MCGUIRE

1904 was a wonderful year for St. Louis. In Forest Park and on Wash U's new Hilltop campus a miraculous display of modernity called the Louisiana Purchase Exposition was going great guns. And in a field named for mover and shaker David R. Francis, the very first American Olympics was taking place. This year, with the completion of the new athletic complex, the old field will recapture its former glory.



Meyer Prinstein competing in the 1904 hop, skip, and jump competition.

Eighty years ago, under the deep blue skies of late summer in St. Louis, the Washington University campus was the setting for what was perhaps one of the most unusual international sporting events ever—the 3rd Olympian games of modern times, the first Olympics to be held in the United States.

The castle-like gymnasium, constructed of Indiana limestone and Missouri red granite, a new-fangled stadium made of concrete poured into wooden forms, and a third-of-a-mile track, were the site of these Olympics, which would again feature the marathon race, an approximately 26-mile run

along the bucolic “wilds” of Clayton and Manchester Roads to the new stadium.

The Olympian Games of 1904 (the word Olympian was the official designation then) had been snatched away from the city of Chicago by a prominent Washington University alumnus, David Rowland Francis, the father of the St. Louis World's Fair and the international games of '04.

Francis received an A.B. degree from the university in 1870, at a time when the school was situated at Seventeenth and Washington Avenue in downtown St. Louis. He lived with relatives in town after moving from his

family's Kentucky farm to attend WU.

After graduation, Francis rose rapidly. His first job was as a shipping clerk with his uncle's wholesale grain company, Shryock & Rowland. Seven years after graduating from WU, he had his own firm, D. R. Francis Commission Company. In 1884, at the age of 34, he was elected mayor of St. Louis. Francis was on his way, and his work and activities would have a profound effect on the university, the city, and the nation.

In the spring of 1899, Washington University, then only 45 years old, had started planning to move from downtown to the woods and cornfields

beyond Skinker Road, and Francis, by now a well-known grain trader and politician, was making big plans himself at this time. The former St. Louis mayor and governor of Missouri already had visions of a major exposition for the city. Earlier, he had tried to drum up support for an exposition that would recognize the 400th anniversary of the discovery of America. That effort failed.

But "our Dave," as his WU classmates called him, was not a man to walk away from anything. Francis turned his attention and energies to the Louisiana Purchase Exposition. With a delegation of 90 St. Louisans, Francis forged the outlines of the World's Fair, which he felt would not be complete without the Olympic Games, scheduled to be held in Chicago.

Francis argued that it would make no sense for the games to be held in Chicago, as the World's Fair was going on in St. Louis. The Olympic Committee agreed.

The World's Fair was to have taken up the western half of Forest Park, and 40,000 trees were cut down to make room for the fairgrounds. But the 657 acres were not enough.

It was decided that the Louisiana Purchase Exposition Co., with Francis as president, would lease the first four quadrangle buildings of the "new" university—then under construction to the west of the park—for \$650,000 plus an additional \$100,000 if the fair was held in 1904 instead of the centennial date, 1903.

Fair organizers were unable to pull off the ambitious project in time for the '03 centennial, so the new university got a total of three quarters of a million dollars in lease money from the fair. In 1905, when the University occupied these buildings, WU athletic teams received the nickname "Pikers" because of the school's proximity to the fair's amusement section, the Pike.

From all accounts, the St. Louis

Games provided moments of high comedy.

From the vantage point of our own ultra-serious, highly competitive world of long-distance running, the marathon run seems like something out of a Chaplin movie. Twenty-nine runners set off from the unusual third-of-a-mile cinder track at Francis Field. (That historic track is now being replaced by a regulation 400 meter oval.)

Among the runners that day was Felix Caraval, a Cuban postman, barely five feet tall, who had trained for the event by running around the town square of Havana. During these runs,



Fred Winters of New York competing in the dumbbell competition. Unlike today's weight-lifting events, the competition employed a fixed weight which was lifted in several different styles. Judges awarded points and the winner was decided on the basis of his cumulative score.

he would periodically mount a soapbox to beg for funds to make the trip to St. Louis.

Even during the Marathon he wore a long sleeved shirt, trousers, and heavy street shoes. Caraval finished the race in 4th place out of the 14 finishers, this despite the fact that he had stopped from time to time to pick apples from a roadside tree. Another of the marathon finishers was a Greek named John Furla. He ran for his native country, even though he had recently become a U.S. citizen. He then settled in the St. Louis area, where his descendants live today.

But it would be another marathon "finisher" who would cause the big stir. Fred Lorz of the Mohawk Athletic Club was about 9 miles into the race when he doubled over with cramps. Lorz hitched a ride with a passing car and spent most of the marathon in the back seat, waving to other runners as the auto passed by.

A few miles from the waiting crowd at Francis Field, the car broke down. And Lorz, now greatly refreshed, jumped out and began the dash for the finish line. When those in the stadium saw him coming, they sent up a roar and the waiting brass bands began to play victory music.

What happened next is open to question, but according to one version, the music and excitement caused Alice Roosevelt, President Teddy Roosevelt's daughter, to rush forward to meet the high-stepping Lorz with the winner's floral wreath.

However, angry Olympic officials realized that Lorz's dash for the tape was a hoax, and they rushed to stop Miss Roosevelt from presenting the imposter with the victory flowers. When the real winner, an Englishman named Thomas J. Hicks, made the last lap on the stadium track, he was in a state of near collapse.

He was kept upright by handlers who gave him shots of French brandy, doses of strychnine, and sponges of warm water from the boiler of a Stanley Steamer. There is little chance that this summer's huge crowd at the Los Angeles Coliseum will see anything like that.

Of course, the marathon run was just part of the wild and woolly Olympics of '04. The overall winner was the U.S. team fielded by the New York Athletic Club, which won the 1904 equivalent of the top gold medal—the Spaulding Trophy. Athletes competed in track and field events, as well as weight lifting.

Actually, the 3rd Olympian games were not the only athletic events taking place that year. There was also a series of games known as the Olympic Collegiate Championships, featuring “the prominent colleges of America,” competing under their colors against other universities and athletic clubs. Washington University was among them.

But without a doubt, the most unusual aspect of the summer's athletic events came on August 12 and 13, when J. E. Sullivan, chief of physical culture, held the so-called “Anthropology Days” at Francis Field. It was an experiment to show whether brown and black-skinned people could challenge the records set by the competing white athletes.

According to the official version of those two days in August, it was “a spectacle indeed extraordinary and rare in the records of human experience.”

And the conclusion? The “alien” competitors were no match for white athletes. It would be several decades before minority athletes like Jesse Owens and Jim Thorpe would finally shatter the white world's smug notions of athletic superiority.

Last winter, as part of a \$300 million fund-raising drive, Washington University Chancellor William H. Danforth announced several building programs, including a \$13 million sports



S. S. Jones won first place in the running high jump.

and recreation complex, now under construction on the historic grounds of the Francis Field and Gymnasium.

Built in 1902, the old stadium and fieldhouse have become the linchpin for this athletic expansion. New facilities are rising from the foundations of the places that were the heart of America's very first Olympics. Everything is being completely refurbished.

The football-soccer field is being moved east, and the new practice field

will take up the western end of Francis Field. Field event areas will be developed within the stadium and adjacent to the playing field. The old stadium itself is being rejuvenated and will have 3,200 permanent seats.

The distinctive old wings of the stadium, which jutted out on an angle from either end, have been demolished. And there will be a new press box.

A new fieldhouse is being constructed within the old structure, and

it will seat 3,600 people. To the north, there will be a new 8-lane, 25-meter swimming pool with a diving well. Adjacent to that is a recreation gym, squash and racquetball courts, a modern entrance plaza, refurbished outdoor tennis courts, and much more.

"We're working towards a brighter future in athletics," said John Schael, the young athletic director. "In the past, the lack of quality athletic facilities has been a detriment to the program. The athletic field and gymnasium, like the classroom, are laboratories for learning, and by no means the least important."

Francis Field had been the setting for major football contests during the university's halcyon days of the pigskin—the 1920s, '30s, '40s, and '50s. Washington University teams coached by Jimmy Conzelman, Weeb Ewbank, and Carl Snavely played the likes of Notre

Dame, SMU, Missouri, Nebraska, Army, Oklahoma, and Boston College, before crowds of 13,000, half of them seated in temporary wooden stands.

There was one annual contest, however, which stood out above all others—the annual Thanksgiving football game against the St. Louis University Billikens. At its peak, that game—the game for both schools—became a battle of faith, morals, and social status. It was the mid-town Jesuit university, the "plebian" institution, doing battle with the Washington U. swells, those "rich Protestant" kids whose perceived ethics and free-thinking notions made the game a struggle that would do justice to Northern Ireland. Halftime festivities often included name calling and fist fights.

There were even flood lights back then, an innovation, quite revolutionary

at the time, which provided a young sportswriter named Red Smith with the kind of column that would one day take him to New York and the Pulitzer Prize.

Smith wrote a whimsical piece about the first night game at Francis Field, a "view from a glow worm," he called it. It ran in the old St. Louis Star-Times.

A change in the direction of athletics on the Hilltop began more or less in 1947, when the late University Chancellor Arthur Holley Compton introduced a new philosophy for the conduct of intercollegiate programs. Compton was a former associate of Robert Maynard Hutchins, the chancellor who proudly abolished football at the University of Chicago, which had been a charter member of the old Western Conference, known now as the Big 10. Compton admired Hutchins.

Slowly, the old Olympic facilities began to deteriorate. A section of the wooden stands, erected in the days of bigtime football, collapsed at a game in December 1947, injuring 22 people. By the latter half of the 1970s, the stadium was beginning to show its age. A third of the seats were declared unsafe in 1978.

Nevertheless, the old stadium, gymnasium, and field house continued to have their moments in the sun. In 1975, the old St. Louis Stars of the North American Soccer League returned to Francis Field—they had played their 1970 home games there—and again breathed life into the old place. The Stars spent \$100,000 in renovations, including once again installing lights.

Two years later, the Stars were grumbling about the old stadium. They declared it unsatisfactory, and moved to Orange County, California. The franchise is now extinct.

Before the \$13 million construction project, old Francis Gymnasium (1902), the Wilson swimming pool (1922), and the fieldhouse (1926) were all showing severe signs of wear.



Entrants in the marathon. Felix Caraval, the Cuban mailman, is number three; note long-sleeved shirt and street shoes.



Portals to history: the Francis Field gates today.

Today, Athletic Director Schael is looking to a new era of Washington University intercollegiate sports to complement the new athletic facility. The department currently sponsors 16 varsity sports, and is looking to an athletic future with a renewed emphasis. "We are seeking new and attractive opponents," Schael said, "schools with similar academic distinction and athletic direction." With this aim in mind, the Athletic Department is organizing the Lopata Invitational Basketball Classic, a tournament that will bring together teams from Johns Hopkins, MIT, Cal Tech, and Washington University. Basketball coach Mark Edwards believes that the Lopata

Classic may inaugurate a trend in college athletics of "teams coming together on the basis of philosophy and similar athletic policies," even though they may be widely separated geographically.

The football schedule, with some games scheduled through 1989, shows "the attractive opponents" that Schael believes will revive interest in the Battling Bears. Under Schael, a former wrestling coach and associate athletic director at the University of Chicago, the number of states and areas where Washington University is recruiting has increased dramatically. In 1981, the University brought back men's basketball, and the reborn team is awaiting the completion of the new fieldhouse.

The new football and basketball schedules include such prestigious institutions as Johns Hopkins, M.I.T., Cal Tech, Trinity, Case Western Reserve, and one other—the University of Chicago Maroons.

What an athletic event. The old Monsters of the Midway and Washington University's Battling Bears once again competing on the hallowed turf of Francis Field.

CHIPPENDALE FROM LILLIPUT

It isn't doll furniture; it's furniture in miniature. And the way Harry Smith sees it, miniaturization is the essence of art.



Harry Smith

by Artemio Manzi

The pleasure of looking at one of Harry Smith's pieces of furniture in miniature isn't difficult to describe. It's the pleasure you feel looking out an airplane window and taking in whole a landscape that you must, on the ground, take in only piecemeal. It's the pleasure you feel when you concentrate on the background of a 15th-century Flemish painting and find there, on a tiny patch of canvas, magpies in a garden of roses and lilies, pedestrians in red breeches crossing a bridge, fishing boats on a river, orchards, wagons, mountains, and a Gothic town all spired and buttressed, prosperous and well-governed. It's the pleasure you feel when you read that Gulliver captured the fleet of Blefuscu using "cable about as thick as pack-thread" and grappling hooks fashioned from iron bars "the length and size of a knitting-needle."

"I'm an illusionist," says Harry Smith, who graduated from the WU School of Architecture in 1962. Since 1959, he has devoted his life to creating illusions on canvas, in books, on the stage, and in small-scale architectural settings fully furnished with furniture in miniature.

Exploring the studio where Smith builds his furniture in miniature, I feel like Gulliver inspecting a Lilliputian factory. Smith's totally accurate reproductions are usually small-scale versions of classic furniture—Queen Anne, Chippendale, Victorian—and he uses the same materials that were used in the original pieces. He stocks his lumberyard with ebony, walnut, cherry, orangewood, satinwood; yet this lumberyard would not fill your hall closet. His "gigantic lathe," on which he might turn the posts for a canopy bed, would fit comfortably in the space where you store your toaster oven. He hews wood with a surgeon's scalpel. Some of his tools Smith must fashion himself or have specially made; others have seen duty in your dentist's office. On a jeweler's lathe he turns a piece of

VOLUNTEERISM

The Rise of

BY TRUDI SPIGEL

Altruistic activity is back in fashion on campuses around the country.

More than a thousand Washington University students this spring turned out to help with Special Olympics. Eight hundred made their way to St. Charles to last fall's flood emergency, sandbagging, helping out in shelters, cleaning up. Students tutored, worked in hospital emergency rooms, gave time to the elderly, the abused, the lonely, helped with homework, played with children, painted houses. Many served once or twice in soup kitchens, or weatherizing projects, or cleaning up urban neighborhoods, in fraternity or sorority service

projects, or through religious organizations such as Hillel or Newman. They gave skating parties, organized trips to the zoo, and raised money.

The received wisdom has been that the current student generation is solidly preppy, focused on grades and jobs and quality of life immediately after college. But that story is changing. This year *Time* magazine, *The New York Times*, and *The Christian Science Monitor* all heralded the change with stories on the rise of volunteerism. According to *Time*, the best estimate is that 15 to 25 percent of collegians engage regularly in some kind of community service. All reported an increase in student involvement across a range of service.

What's true at Brown and Stanford and Vanderbilt is also true at Washington University. It's difficult to come up with tidy numbers on this highly diversified campus, but the 15 to 25 percent figure is undoubtedly correct for us, too. That's heartening, but there's more to the story: Harry Kisker, dean of student affairs, estimates that over the past year at least 90 percent of students on campus were involved in some kind of altruistic activity, at some level, sometime during the year—much of it done with relatively little fanfare.

Unlike the politically imbued community service of the Sixties, today's volunteerism is more strictly altruistic, with individual students finding their own ways to involvement; this new form of direct action parallels, Kisker suggests,

the decline of student interest in university decision-making.

The engine that drives volunteerism, now as in the Sixties, Kisker says, is youthful idealism. "Idealism is a constant for young people, idealism and energy. It gets battered, but it's there. Students are looking for meaning, for the intrinsic rewards, for engagement with fellow human beings."

Special Olympics, like many of the service projects on campus, began with one student, Eric Berger, a sophomore from Atlanta. Over the summer he learned how a friend had brought Special Olympics, a day of activities and recreation for the handicapped, to the University of Maryland, and Berger determined that he would do the same at his university. By early October, he had the support of the Office of Student Activities' Justin Carroll and Director of Athletics John Schael, and he began pulling students together to help plan a February 15th Special Olympics basketball tournament.

They needed people and money. They needed buddies for athletes and cheering sections for teams. They needed people to help serve food; they needed entertainment. They wanted an Olympics with pageantry and excitement and vitality. Between October and February, Eric and a dedicated core of co-workers from his fraternity, ZBT, raised \$8,000 in cash and \$5,000 in donated food, and got commitments from groups all across campus.

The response was overwhelming. By the end of that Sunday in February, more than 1,500 students had come to the



Elise Wallach

Helping hand: More than 1,500 students pitched in last winter to hold a Special Olympics in the new Athletic Complex; among them junior Mark Oakland, who offered an impromptu trumpet lesson.

Athletic Complex to help. They did the work they had come to do—cheering and serving—but they did much more. They reached out and embraced those special athletes, aged 7 to 64, with an outpouring of care and attention. There was joy and contentment on every side.

Institutional support is as important as individual participation. Some of that support comes simply at the level of encouragement; some comes with direct help in solving logistical problems, critiquing plans, opening doors, identifying resources; and some comes by providing the necessary links to the community. It comes from the Office of Student Affairs, from organizations' advisors, from the staffs of religious and service organizations.

The Campus Y has long been a reliable campus center for community service. This year close to 160 students gave time on a regular basis to 16 different service projects, while more than 200 worked on one-time programs—a 13 percent increase in activity from last year. "A difference," notes Helen Davis, director of the Y, "is that students seem to be serving out of a greater sense of commitment. There's more unselfish concern out there. They gave time and energy they could use for themselves."

Sherry Taylor, a junior from Oshkosh, Wisconsin, recruited students to tutor once a week at University City High School. According to Herman Shaw, assistant principal, the program was an outstanding success. Close to 50 students, many of them on a continuing basis, were helped over the year by the volunteers. "The volunteers really kept track of the kids they were helping," Shaw said.

Three times a week, Washington University students trekked to the Kinloch YWCA to give attention and supervision to children who would otherwise go home to empty houses. Kinloch has no library, no schools within its boundaries. There's not a lot of attention at home. Amy Holtman, a sophomore from Wooster, Ohio, made the gift of her time to Kinloch youngsters twice a week all year.

Community service has always been the backbone of the Campus Y. But today programs are tuming up all over campus. In the spring of 1986, a meeting called by the deans of the Business School to test interest in developing systematic opportunities that would capitalize on the special skills of business students drew more than 60 volunteers. The idea was to place students with nonprofit agencies or organizations too small to have accountants, marketing experts, or managers on their staffs, that could use a helping hand from students who were



Fair for all: Thurtene Carnival, an annual campus event since 1907, is one of the oldest and largest student-run charitable events in the country. This year, more than 2,000 students—among them the fraternity member shown here (at right) cooking hot dogs—turned out to help with the festivities.

developing expertise in those areas.

"Some students," says Associate Dean Gary Hochberg, "have a fully developed sense of responsibility, a clear sense that giving something back to the community is something they ought to do. Others see volunteerism as a chance to work closely with business leaders, to have a level of responsibility and visibility they might not get on the job for quite a while. For many it's simply intrinsically rewarding."

Hillel, too, has seen a striking increase in volunteerism this year. "To be an undergraduate is a grim existence," says Rabbi Jim Diamond, director of Hillel. "They're under tremendous pressure to show performance results. Service allows them to transcend themselves. It's part of their search for meaning, fulfillment, self-definition. In the total economy of life at the University, these activities are absolutely necessary."

Thurtene Carnival expresses the spirit of community service in another way. The carnival, a campus institution since 1907, is the largest student-run carnival in the country. Its managers, the 13 members of the honorary society, spend the better part of the academic year getting ready for the April event. While individual groups—fraternities, sororities, residence halls, and student organizations—rent space for booths or entertainment attractions, all organization and manage-

ment is handled by Thurtene. In the old days—before 1970, that is—Thurtene was primarily a Greek event, but since then both the breadth and diversity of student involvement has increased, and Thurtene itself has committed its profits to charity, this year choosing the Cystic Fibrosis Foundation. Two thousand or more students worked on the carnival this year; that's a lot of spirit, and a lot of service.

There's more, much more, to the story. Students from Newman Center went every week to serve dinner at a retirement home and then stayed to dance with the residents. Others paired with young women in a home for unwed mothers, learned the Lamaze technique with them, then stood by during delivery. Five from the Y drove to South Dakota to help on a Sioux Indian reservation over spring break. On the eve of final exams, at the tail end of reading week, more than a hundred came to a benefit film with donations of canned food.

"That kind of giving," said Provost Max Cowan, at a recognition ceremony in April held by the Y to honor the campus-wide commitment to service and involvement, "never becomes obsolete." □

Trudi Spigel, Ph.D. '69, is director of special projects in public relations at Washington University.

Founded: 1853 in St. Louis, Missouri

Chancellor: William H. Danforth, M.D.

Reputation: Washington University in St. Louis is an independent university known internationally for excellence in teaching and research and for the quality of its faculty and students. The Washington University Medical Center is world-renowned for biomedical research.

Endowment and Finances: The Washington University endowment had a market value of \$1.1 billion on June 30, 1988 -- and ranks in the country's top ten. The annual operating budget was \$444 million in 1987-88. The nation's most successful fund-raising campaign -- THE ALLIANCE FOR WASHINGTON UNIVERSITY -- is the first to top \$500,000,000 (1986) and reached a total of \$630.5 million when the campaign officially closed on December 31, 1987.

Faculty Honors: Eighteen Nobel laureates have been associated with Washington University, eight doing the major part of their pioneering research here. More than 35 current faculty are recognized for their memberships on national academies for the sciences, engineering, arts and sciences, poetry, etc.; as well as winners of the Pulitzer Prize, National Book Award, National Book Critics Circle Award; recipients of national and international fellowships; and more than 250 editors of professional and scholarly journals.

Research: Virtually all of the more than 1,480 full-time faculty members engage in research activities, including both scholarly and creative efforts, in addition to teaching. During fiscal 1988, \$129 million was received in total research support, including \$104 million in federal obligations. In a 1984 Department of Health and Human Services study, Washington University ranked 7th nationally among private universities in federal research support. The \$62 million research agreement with Monsanto Company is the nation's largest between an American corporation and a university.

Students: Washington University students represent all 50 states and more than 70 foreign countries and territories. Over 85 percent of the undergraduates come from outside the St. Louis area, and half are from more than 500 miles away. Fifty-five percent of the undergraduates are men, 45 percent women, and 12 percent are minority students. The student/faculty ratio is 9:1. More than two-thirds of the 1,216 freshmen in fall 1988 ranked in the top 10 percent of their high school classes. Of the 9,341 full-time students, 5,075 are undergraduates and 4,266 are graduate and professional students. More than half of the undergraduates receive need-based financial aid, which averages \$10,000 per student. Tuition for 1988-89 is \$12,450.

Academic Programs: The University offers more than 60 programs and 1,300 courses leading to bachelor's, master's, and doctoral degrees in a broad spectrum of traditional and interdisciplinary fields with additional opportunities for minor concentrations and individualized programs. The schools and colleges include:

- | | |
|---|---|
| School of Architecture | School of Law |
| College of Arts and Sciences | School of Medicine |
| Graduate School of Arts and Sciences | George Warren Brown School of Social Work |
| John M. Olin School of Business | School of Technology and Information Management |
| School of Dental Medicine | University College |
| School of Engineering & Applied Science | |
| School of Fine Arts | |

Campuses: Washington University has two campuses on the western edge of St. Louis. The 169-acre Hilltop Campus features predominantly collegiate Gothic architecture in its academic buildings, many of which are listed on the National Register of Historic Places. The campus athletic complex was the site of the 1904 World Olympics -- first ever played in North America. The 59-acre Medical Campus includes the Schools of Medicine and Dental Medicine and the hospitals and institutes of the Washington University Medical Center.

The New York Times

Washington University, Enjoying New Acclaim, Is Besieged by Applicants

By DEIRDRE CARMODY

Special to The New York Times

ST. LOUIS, May 24 — Except for the Latin motto engraved in stone above the leaded windows, the Gothic archway at Washington University in St. Louis looks for all the world like Blair Hall at Princeton. And well it might. Built in 1900, the ivy-covered towers were designed by the same canny architects who sold an almost identical set of plans to Princeton a few years earlier.

For years the Ivy League reference was an apt one. Washington University was best known as a backup choice for students who did not get into Ivy League colleges. But in the last few years this medium-size liberal arts university has dramatically come into its own.

"When I applied here, it was a school to fall back on," said Yung-Hsing Wu, a senior. "My sister is applying and now it's a reach."

Even as colleges across the country report record numbers of applicants,

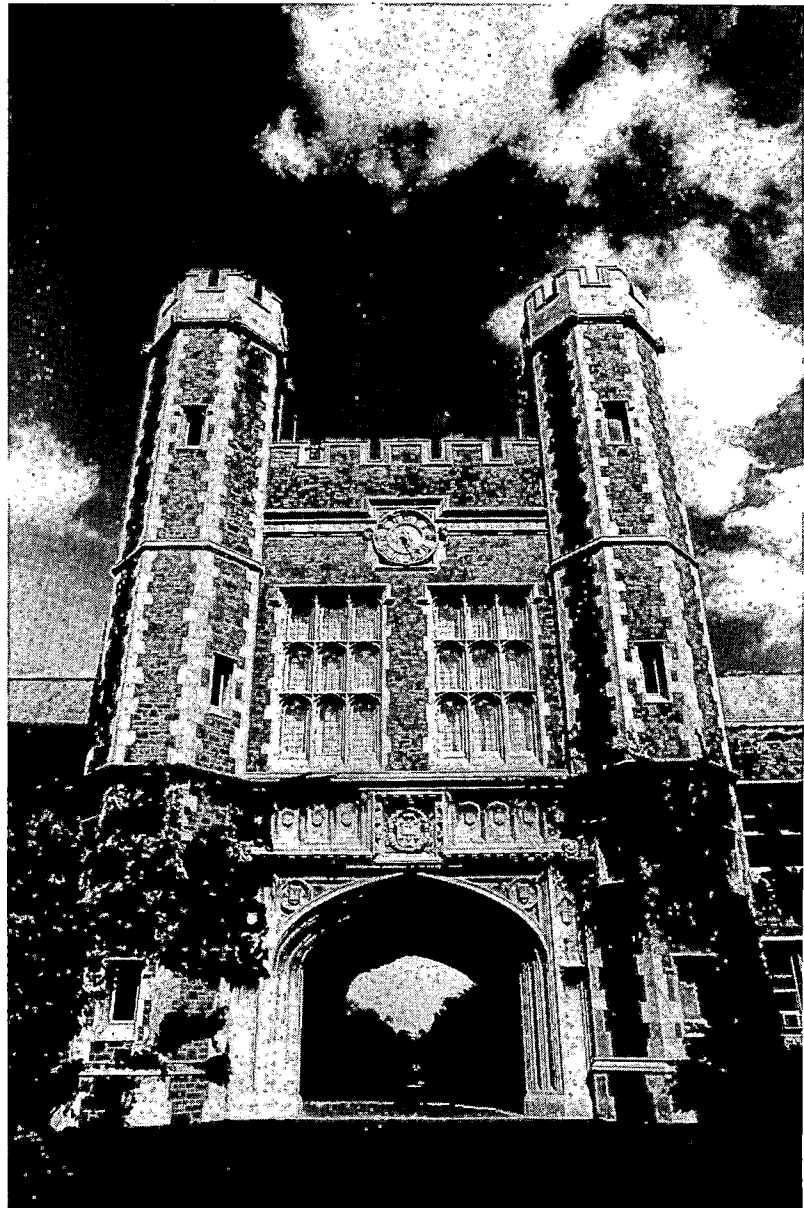
'Our theory was that if people knew about us, people would come.'

Washington University stands out: applications increased 50 percent over the last two years.

Last year the college received 7,129 applications for a freshman class of 1,297. This year, 8,919 applications were received for a class targeted for 100 fewer students.

Changes in Ranking

Moreover 94 percent of the students offered admission for next fall's freshman class ranked in the upper



Brookings Hall at Washington University in St. Louis. It was designed by the same architects who designed Blair Hall at Princeton.

fifth of their high school class, up from 80 percent last year. The average score of applications on the Scholastic Aptitude Test rose this year to 1218 out of a possible 1600 from 1198 last year.

"It seems clear, therefore, that we will be welcoming a class of 1,200 freshmen with the strongest academic credentials of any freshman class we have ever known," E. B. McDonald, the acting Dean of Admissions, wrote to 250 high school counselors who have usually directed students to Washington University to explain why so many good students were being denied admission.

Like many of their peers at other selective institutions, college officials here are groping for explanations of their success. Chancellor William H. Danforth said the explosion in applications had resulted from a campaign to make the college better known, an effort that included invitations to high school counselors from around the country.

Other factors, according to interviews with the chancellor, admissions officials, financial aid officers, deans and students, included these:

¶The growing academic reputation of the college. A survey that all admitted students are asked to fill out indicates that the leading reason for applying was "a growing understanding of Washington University's academic prestige."

¶A recently completed \$630 million campaign, which doubled the original goal of \$300 million announced in 1982.

¶Intensified efforts to recruit more students nationally and to increase financial aid options.

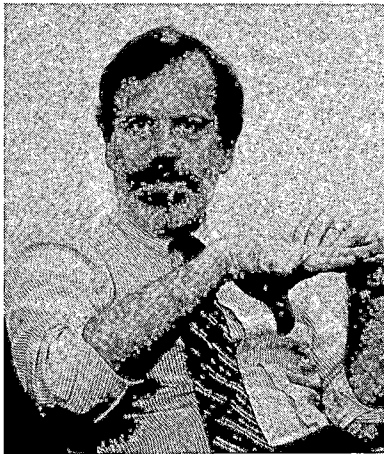
¶An effort to attract black students.

¶A \$13 million renovation of athletic facilities and membership in the new eight-member University Athletic Association made up of similar liberal arts institutions.

Applications Soaring

In a sense, selective colleges around the country are on a roll. Applications have been soaring for the last two years in a period when college officials feared they would be tightening their belts because there are fewer 18-year-olds.

While no one is quite sure why so many more students are applying to college, it is clear that a college education is increasingly being viewed as worth the considerable financial sacrifice it has become. In addition, the word has spread to students that inability to pay tuition at a good college is no longer a certain



The New York Times/Bill Stover

E. B. McDonald, Acting Dean of Admissions: "It seems clear, therefore, that we will be welcoming a class of 1,200 freshmen with the strongest academic credentials of any freshman class we have ever known." Yung-Hsing Wu said, "when I applied here, it was a school to fall back on. My sister is applying and now it's a reach."

barrier to a qualified student because of the increased availability of financial aid.

Washington University instituted a cost stabilization plan in 1977 under which parents can borrow money from the university and use it to pay four years' tuition all at once. This means they avoid the yearly increases they would be subjected to if they paid on an annual basis. The payments to the university can be made over 10 years at an interest rate of 9.2 percent.

Two years ago the plan was expanded to include room and board. It was also made available to parents whose children were receiving financial assistance based on need. These parents can now pay the portion of the tuition for which they are responsible under the same cost stabilization plan.

Participation in Tuition Plan

In the 1985-86 school year, the parents of 75 students participated in the plan. Last year the parents of 342 students signed up. Full tuition, room and board is \$17,049.

"Families like it because it offers stability in long-term planning," said Dennis J. Martin, director of financial aid. "They see it as part of a statement from the university. We could afford to be a university where each student pays the full freight, but we are looking for a diverse student body."

For the last 10 years, 50 to 60 percent of the students have received

financial aid. The average income of these students' families is \$43,000.

"We have been a school that has not alienated the middle class as much as many other schools have," Mr. Martin said.

The college, which has 4,440 students, has also recently instituted a special scholarship program for black students. Under this plan, 10 black students, selected in a competition, receive full tuition plus a \$2,500 stipend. The university works through church groups, black alumni and high school guidance counselors to inform talented black students of the program. This year the college had a 21 percent increase in black applications.

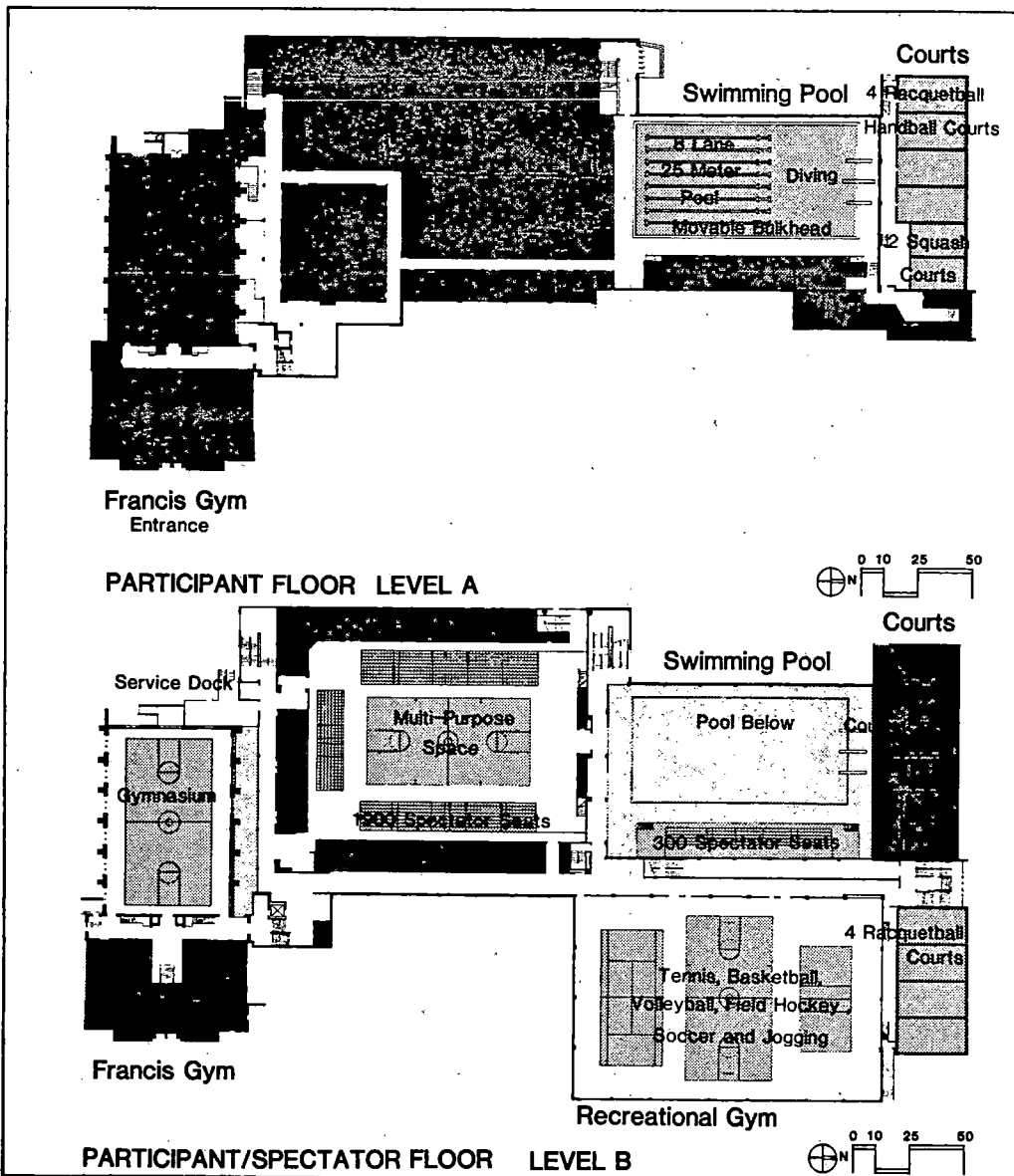
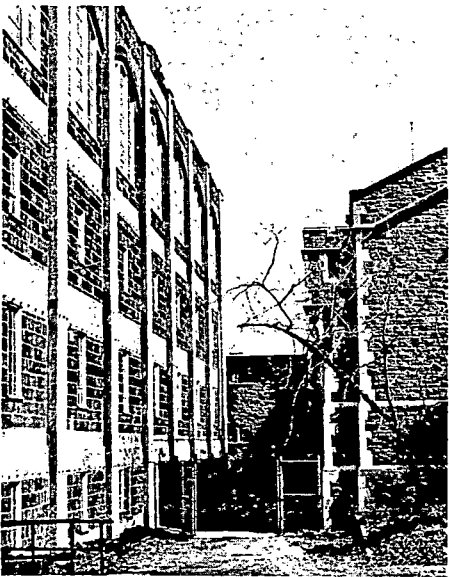
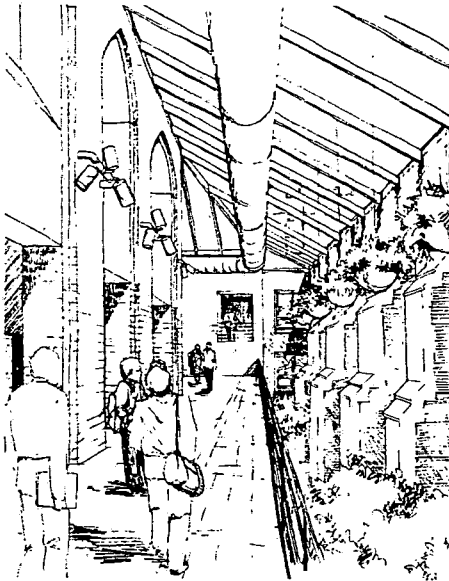
The college, with its Gothic buildings of red Missouri granite and white limestone, its series of courtyards and its abundance of grass and trees is made up of five schools — arts and sciences, business and public administration, architecture, fine arts and engineering. A high-quality research institution, it has long been attractive to pre-medical students because of its medical school, which runs a faculty exchange program with the undergraduate biology department.

"Our theory from the start was that if people knew about us, people would come," said Chancellor Danforth. "If students visit the campus, they are more likely to come. We are a Midwestern university. We're friendly."

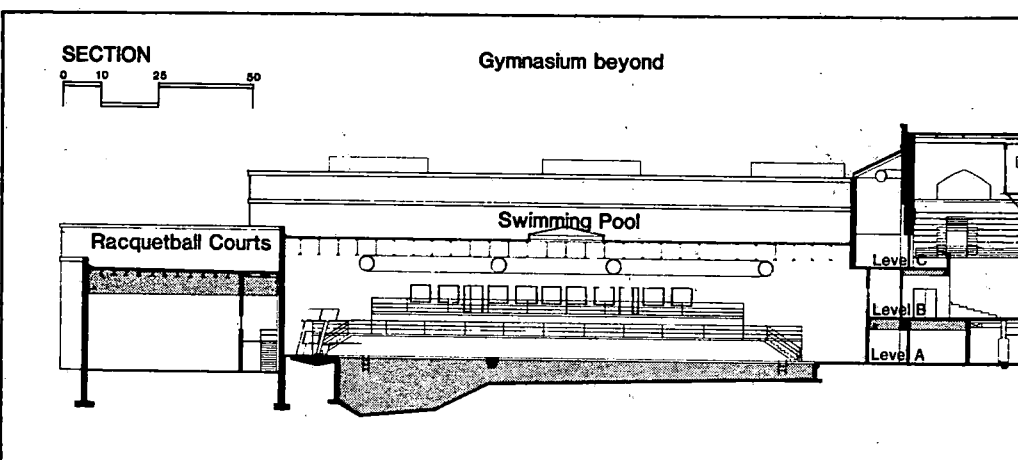
Owner: Washington University,
St. Louis, Missouri
Mr. Joseph Evans,
Associate Vice
Chancellor for
Business Affairs
Mr. Lawrence F. O'Neill,
Administrator of
Physical Facilities

Architects: Pearce-Eggers,
Architects
Pearce Corporation,
St. Louis, Missouri
The Eggers Group, P.C.
New York, New York

Project Team: Principal in Charge:
David W. Pearce, AIA
Principals in Design:
Laurance P. Berri, AIA
David Finci, AIA
Project Architect:
James B. Dutton, AIA
Energy Architect:
Jan J. Kalas, AIA

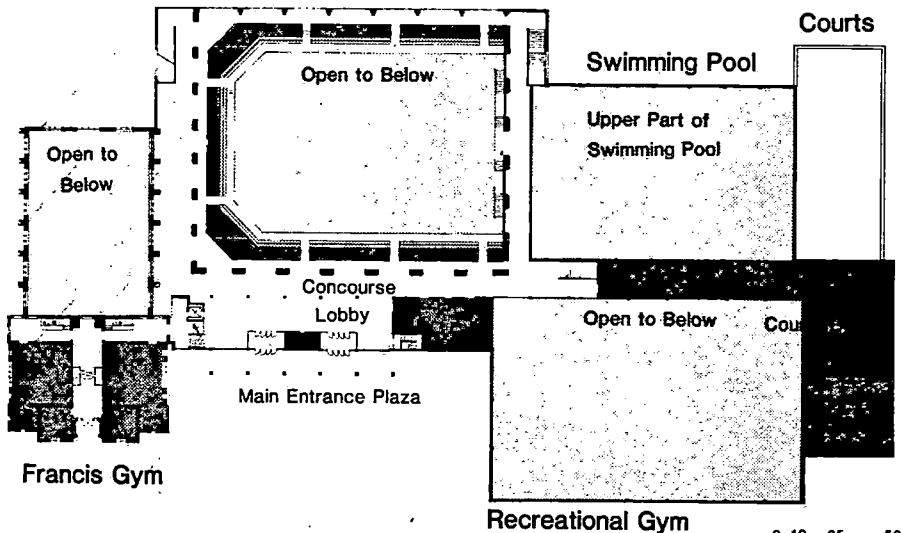


The exterior treatment of the complex was designed to be compatible with the existing 1902 Francis Gymnasium character, but contemporary in form and proportion. The main exterior material on the new structure is an 8" x 8" brick in brown tone color, accented with limestone bands and copings. The Recreational Gymnasium, because of its location, is a major campus facade element. Its size and height are controlled and simplified by placing slightly below grade. It is further embellished with three parapets, screening skylights reminiscent of the Francis Gym towers, screening skylights and rooftop heating and ventilating units.

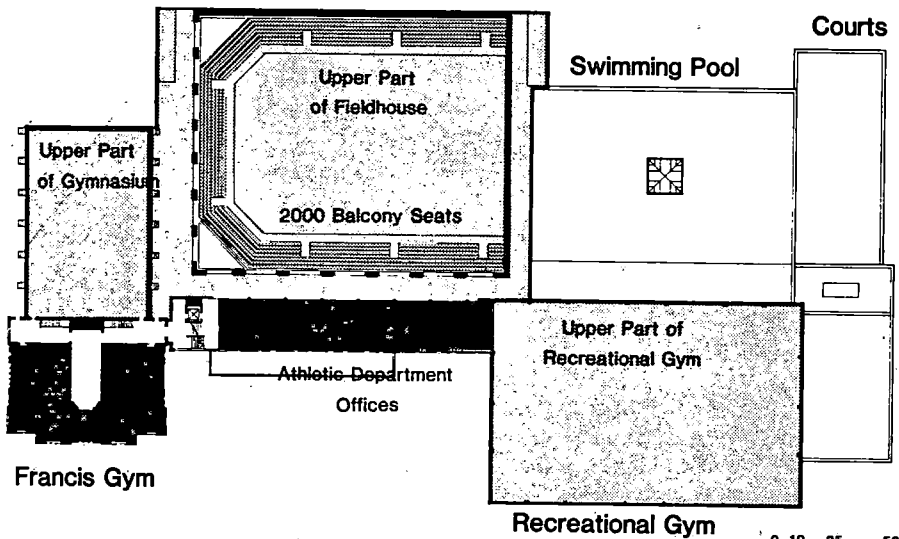


Construction: Contractor: Kloster Company, Inc. St. Louis, Missouri
 Contract Award: \$10,539,403.00
 Building-\$9,786,603
 Athletic Field-\$752,800

Schedule: 20 Months
Completion Date: December 1984
Building Data: Total Square Feet: 178,025 GSF
 Average Building Cost Per S.F.-\$55/GSF



SPECTATOR FLOOR LEVEL C



ATHLETIC DEPARTMENT FLOOR LEVEL D

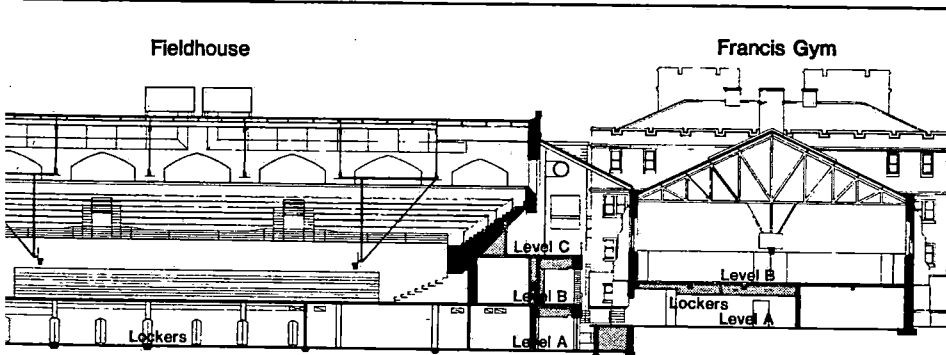
BUILDING ORGANIZATION

The complex has been designed for functional efficiency, security, operational (energy), maintenance efficiency, and handicapped accessibility.

Functional efficiency and security have been achieved by providing a single major entry and control point for students/participants and visitors/spectators (Level C), which then separates the visitors from participants' traffic throughout the building. Visitors/spectators can enter the Field House balcony seating directly from the lobby and concourse; access the Administrative/Faculty offices on the mezzanine (Level D); view Recreational Gymnasium activities; or in the future, walk to the proposed conference center to the north. Students and participants pass through Level C control down to Level B, providing access to the Recreational Gym playing floor, the new Field House playing floor and bleacher seating, Racquetball/Handball and Squash Courts, and bleacher seating of the Swimming Pool. The service dock is also at this level.

Level A functions are exclusively participant and service functions, including Laundry/Issue Room, main Recreational Men's and Women's Locker Rooms, Visiting Team Locker Rooms, Varsity Team Locker Rooms, Staff and Officials' Locker Rooms, Training Room, Weight Training Room, Multi-Purpose Room, and Swimming Pool.

Levels A through D connect directly to the corresponding levels in Francis Gymnasium.



INTRODUCTION

Washington University, in the spring of 1981, selected ten architectural firms, nationally recognized for the design of athletic facilities, to interview for a new Sports and Recreation Complex. The Pearce Corporation, in association with the Eggers Group, P.C., was one of three finalists selected for a design competition.

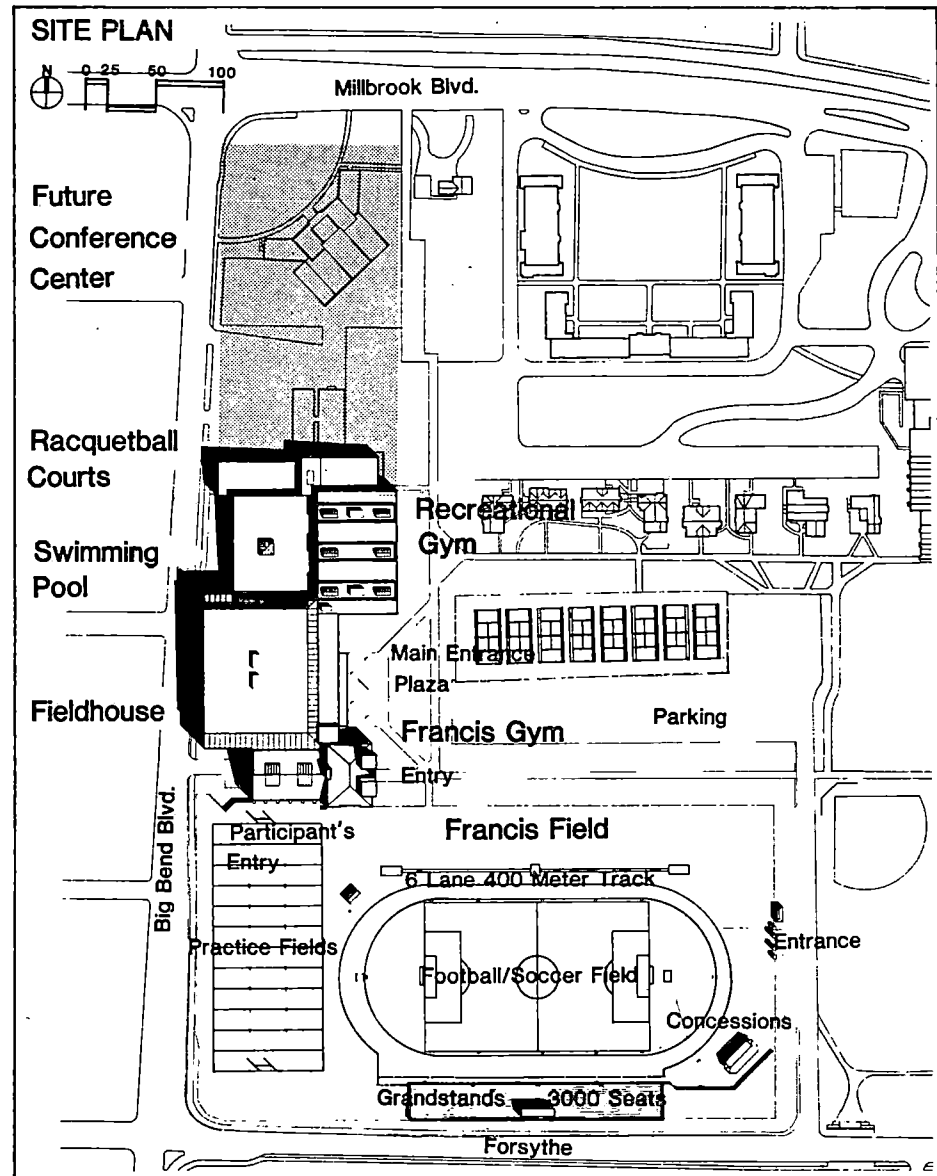
The Pearce-Eggers award winning design proposed a comprehensive solution, going beyond the original University program by resolving the critical problem of "what to do with the existing Field House". As conceived, the overall concept economically integrated the new facilities with the old; preserved and recycled existing buildings; effectively resolved broader historic campus planning issued by improving the west end campus environment, integrating a planned future convention center to the north, and developing and refining a visual tie between the Sports Complex and Graham Chapel to the east.

SITE

Access to the four level complex is through a single main entrance on the east side facing the campus. Service access is from the west, Big Bend Boulevard. A north-south concourse in the complex, serving the Recreational Gymnasium, and Swimming Pool, is designed to connect to the future conference center to the north. The tennis courts remain in the present location, eventually to be relocated to the west end of the athletic field.

The Recreational Gymnasium is located to the northeast corner of the complex, with the new Swimming Pool, Racquetball/Handball and Squash Courts at the northwest corner, taking advantage of the sloping topography down to Big Bend Boulevard. The existing renovated Field House anchors the complex and is located directly opposite the main entrance. The historic Francis Gymnasium remains a prominent focal point when viewed from the campus.

The Athletic Field to the south of Francis Gymnasium is completely refurbished with a new synthetic surface and relocated six lane 400-meter track; specially drained regulation Football and Soccer Fields; renovated seating for 3,000; new pressbox with complete



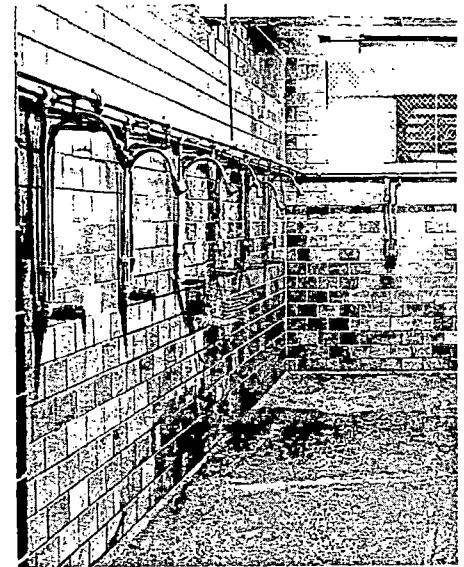
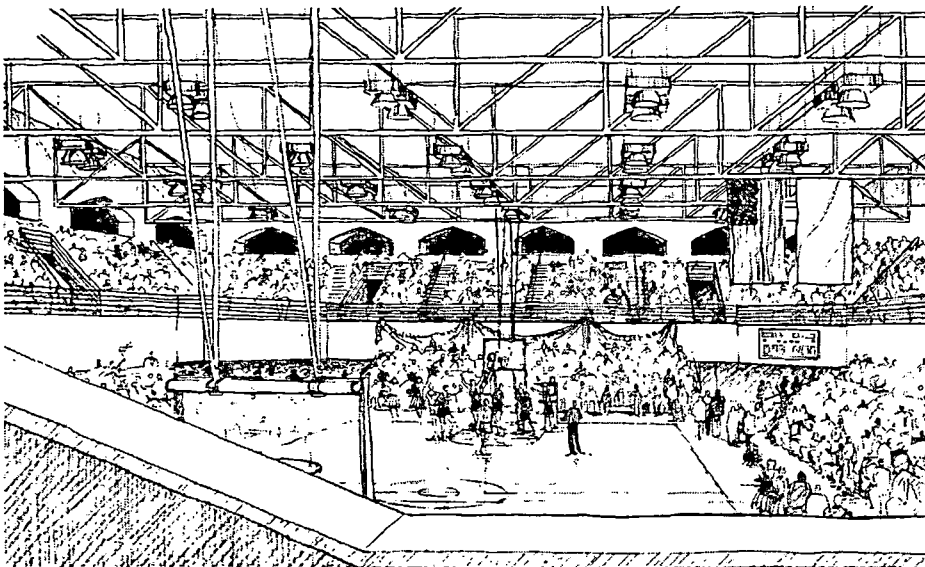
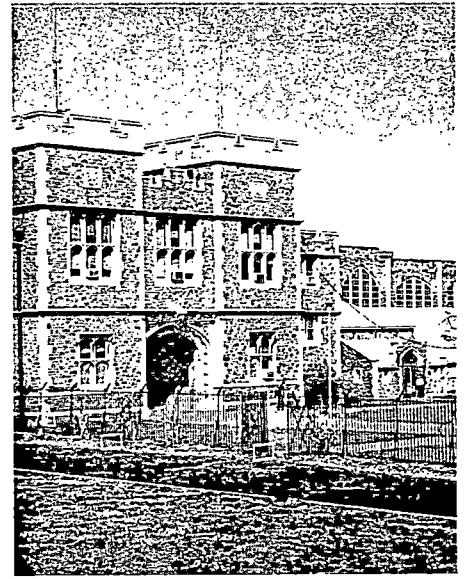
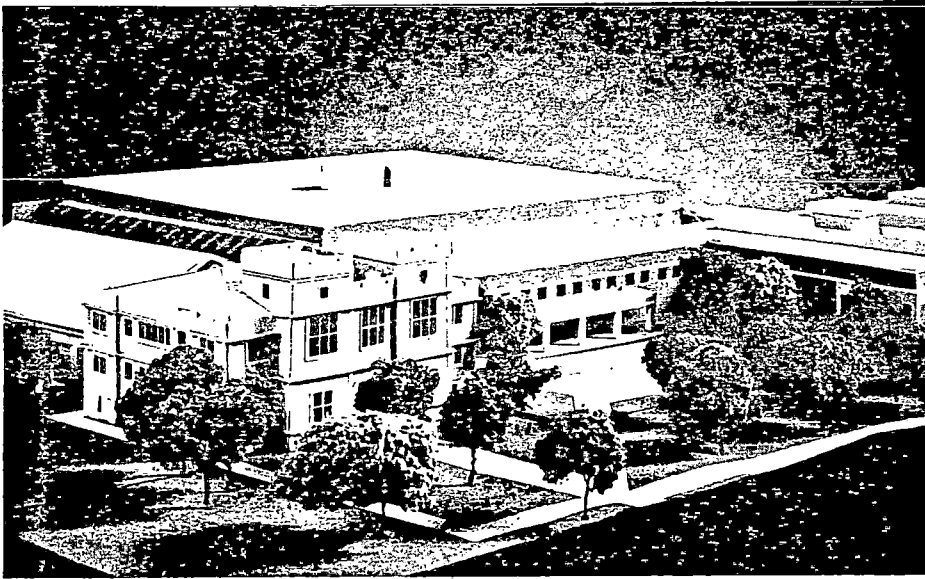
electronic communications systems; improved lighting; new concession stand and toilets; new paved entry with fan control fences; and a new practice field.

DESIGN CONCEPT

As stated previously, the original University program did not include development of the existing Field House. The Pearce-Eggers design team recognized this as a major deficiency in the program, because a new complex which did not properly address the existing Field House would appear, when constructed, to be an incomplete facility with a major eyesore (Field House) in an unfinished state.

The Field House evolved as the central core facility for the entire new complex. Another benefit was that substantial cost savings could be anticipated if the existing Field House were renovated, rather than building a new structure in the future. The construction bids ultimately confirmed the wisdom of this decision.

The Field House existing playing floor (Level A) was an ideal location for the main Recreational Locker Rooms. This also established the elevation for the main swimming pool deck to the north. To replace the existing playing floor, now used for locker rooms, the lower balcony of the Field House was re-



moved, and a new floor was added (Level B). This still allowed a clear ceiling height to the bottom of the existing trusses of 32'-0". By raising the playing floor, it was possible to reduce the unacceptable steep slope of the upper balcony, and improve the sight lines as well. This is both an economical and effective re-use of the existing facility.

The Francis Gym lowest floor (Level A) was of sufficient size to house the Varsity Locker Room requirements and provide, in addition, excellent access to the Athletic Field. The centralized location of the Field House provided the basis for a functional and efficient plan, locating all the major Participant re-

quirements on Level A; Visitor/Spectator requirements on Level C; and Level B as a common participant and spectator level, depending on the programmed activity underway.

The main concourse, Level C, was designed as a dramatic skylit circulation element, serving as a link tying the Recreational Gymnasium, Swimming Pool, Handball/Racquetball and Squash Courts together with a rehabilitated Field House and partially restored Francis Gymnasium.

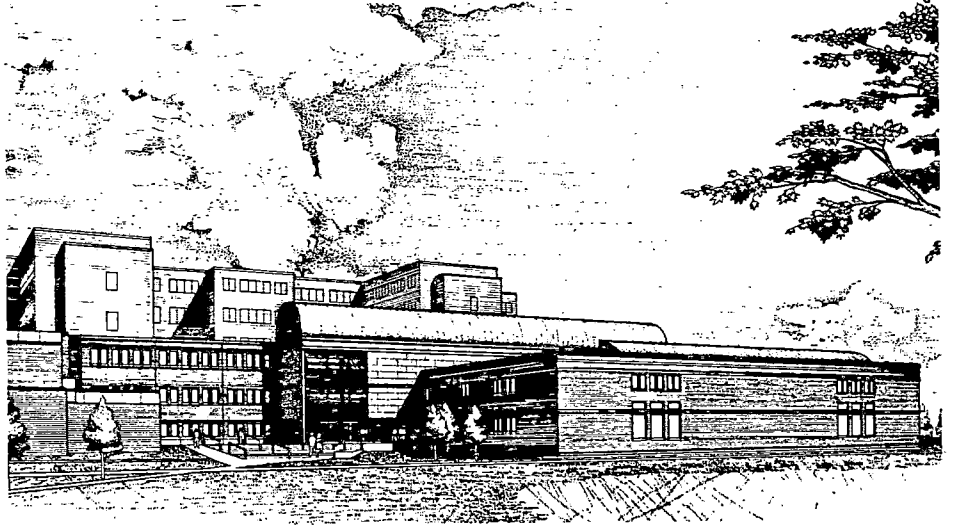
The interiors are a contrast of old and new because of the recycling of the 1902 Francis Gym and the 1928 Field House. For example, the entire north

facade of Francis Gym is featured as an interior element, by treating the concourse at this point as a skylit atrium, open on four levels. Another example is the retention of the basic form of the upper window areas of the Field House and their use as open penetrations between the Field House and upper skylit portions of the concourse on the east and south sides.

The integration of the old with the new, the creation of new spatial relationships through the use of a skylit concourse—complete with graphics, banners and vibrant colors—will provide an exciting, dynamic environment for the building user.

UNIVERSITY OF MISSOURI HEALTH SCIENCES LIBRARY, COLUMBIA, MISSOURI

Pearce Corporation is completing construction documents for a new \$8 million Health Sciences Library and Medical School Addition for the University of Missouri at Columbia. The two buildings, of 50,000 square feet and 60,000 square feet respectively, are separated by an enclosed four story atrium which is designed to introduce significant amounts of natural light into the library, while having the added benefit of providing a visual focus and campus entrance to the Medical School. The library, which will contain enough daylight within the building so that only supplementary task lighting will be required for study and research. Since the daylight is not received from large glass areas, measurably reduced energy consumption levels will result. John R. Bird, AIA, Associate Vice President, is Project Architect for this assignment.



PERSONNEL

Tom Brooks-Pilling was recently promoted to Associate Vice President. Tom joined Pearce Corporation in 1979 after receiving a Bachelor of Architecture, Magna Cum Laude, from Kansas State University. He is currently serving as a designer on the \$8 million Health Sciences Library for the University of Missouri-Columbia. In addition, Tom is a key resource for the office in graphic design and energy analysis during the conceptual design phases of a project.



DEPAUL COMMUNITY HEALTH CENTER BRIDGETON, MISSOURI

DePaul Health Center, a 611 bed not-for-profit medical complex located in Bridgeton, Missouri, has chosen Pearce Corporation to assist the Health Center in developing and implementing a broad range of construction projects identified in its long range plan. Some of the projects proposed include expansion of psychiatric facilities, construction of a multi-level ambulatory care center, expansion of the existing cafeteria, development of a rehabilitation center, and the construction of a 600 car parking garage. M. Kent Turner, AIA, Partner-in-Charge of Healthcare for the office, will be heading up the DePaul project team. Ralph G. Horton, Assistant Administrator, is coordinating all project planning and development for the Health Center.

PEARCE CORPORATION



One Mercantile Center
Saint Louis, Missouri 63101
314 241-6250

BETHANIA HOSPITAL, WICHITA FALLS, TEXAS

Pearce Corporation has been authorized to proceed with planning services in connection with a Certificate of Need Application for the next expansion of Bethania Hospital. Laurance P. Berri, AIA, Vice President, is preparing the documentation for the application. Pearce Corporation has previously designed the recently completed \$6 million hospital renovation and surgery pavilion addition, which included open heart and neurology facilities.

WE WILL FIGHT DRUGS ON TWO FRONTS -- SUPPLY AND DEMAND -- TO RECLAIM THE LIVES OF ADDICTS WHO WANT HELP, EDUCATE YOUNG PEOPLE ABOUT THE DANGERS OF DRUGS, AND ENFORCE OUR LAWS.

ALL THIS IS WHAT I MEAN WHEN I SPEAK OF INVESTING IN THE FUTURE.

TO MINORITY AMERICANS, THIS BUDGET SAYS, "EDUCATION MEANS OPPORTUNITY, AND BIGOTRY WILL NOT BE TOLERATED." TO THE HOMELESS, THIS BUDGET TARGETS \$1 BILLION, SAYING, "OUR NATION MUST LEAVE NO ONE OUT." TO THE ELDERLY, THIS BUDGET VOWS, "YOUR DIGNITY AND CONCERNS WILL BE

RESPECTED." AND TO THE NATION'S YOUTH, THIS BUDGET SAYS:
"THE PROMISE OF TOMORROW LIES IN THE CHILDREN OF TODAY."

CONSIDER THIS: WE HAVE PROPOSED A NEW CHILD CARE INITIATIVE, TARGETED AT LOW-INCOME FAMILIES. WE HAVE RESTORED AND DOUBLED THE TAX DEDUCTION FOR ADOPTING SPECIAL NEEDS CHILDREN.

EVEN MORE, WE HAVE MADE EDUCATION THE GATEWAY ARCH OF THE BUSH ADMINISTRATION. FOR OUR PURSUIT OF EXCELLENCE IS CENTRAL TO THE FUTURE OF AMERICA. AND IF EXCELLENCE BREEDS ACHIEVEMENT, THEN EXCELLENCE MUST BE REWARDED -- IN

GRADE SCHOOL, IN HIGH SCHOOL, AND IN THE COLLEGES AND UNIVERSITIES OF AMERICA.

LAST THURSDAY, I ASKED CONGRESS TO BEGIN A \$500 MILLION PROGRAM TO REWARD AMERICA'S BEST SCHOOLS -- "MERIT SCHOOLS" -- AND TO ESTABLISH SPECIAL PRESIDENTIAL AWARDS FOR THE BEST TEACHERS IN EVERY STATE. I URGED EXPANDED USE OF MAGNET SCHOOLS -- GIVING FAMILIES AND STUDENTS A CHOICE IN EDUCATION. AND I PROPOSED A NEW PROGRAM TO ENCOURAGE "ALTERNATIVE CERTIFICATION" -- ALLOWING

QUALIFIED AND TALENTED AMERICANS FROM EVERY FIELD TO TEACH IN AMERICA'S CLASSROOMS.

WE MUST BRING MORE OF OUR BEST MINDS BACK TO THE TEACHING PROFESSION. AND THROUGH A NEW PROGRAM OF NATIONAL SCIENCE SCHOLARS, WE CAN INSPIRE THEIR STUDENTS, TOO -- GIVING AMERICA'S YOUTH A SPECIAL INCENTIVE TO EXCEL IN SCIENCE AND MATHEMATICS. IN SHORT, I WISH TO ACHIEVE, NATIONALLY, WHAT THIS UNIVERSITY HAS DONE, HISTORICALLY, TO MAKE EXCELLENCE IN LEARNING A NATIONAL WAY OF LIFE.

EDUCATION CAN ENNOBLE THE AMERICAN STORY. IT IS THE BEST WAY TO INVEST IN OUR FUTURE AND TO MAKE THIS A BETTER, MORE SELFLESS, MORE TOLERANT WORLD.

YES, IN SOME AREAS I WISH WE DID HAVE MORE MONEY TO SPEND -- FOR INSTANCE IN KEY AREAS LIKE DRUGS AND EDUCATION. BUT WE HAVE SET THE RIGHT PRIORITIES IN THIS BUDGET. OURS IS NOT THE TOTAL ANSWER, BUT IN THIS BUDGET WE HAVE MADE A GOOD BEGINNING.

NOW, WE HAVE WORK TO DO. THERE ARE MANY PROBLEMS THAT MUST BE SOLVED IN AMERICA TODAY. I AM CONFIDENT THAT

THE NATION CAN SOLVE THEM, BUT AMERICA MUST GO FAR BEYOND THE FEDERAL BUDGET TO ACHIEVE ITS GOALS.

WE MUST FORGE STRONG PARTNERSHIPS BETWEEN ALL LEVELS OF GOVERNMENT AND VOLUNTARY ORGANIZATIONS, BUSINESS CORPORATIONS, AND INDIVIDUALS -- TO LEND A HAND, MEND A WOUND, AND HELP THE LESS FORTUNATE.

MY FRIENDS, NEXT WEEK BARBARA AND I WILL TAKE A JOURNEY TO PURSUE PEACE AND FRIENDSHIP -- A JOURNEY THAT WILL CARRY US ACROSS THE PACIFIC TO JAPAN, CHINA, AND KOREA.

WE GO TO ATTEND THE FUNERAL OF THE LATE EMPEROR AND TO CONSULT WITH THE LEADERS OF MANY OF AMERICA'S ALLIES AND FRIENDS. MY VISIT TO CHINA IS A SENTIMENTAL JOURNEY TO A COUNTRY WHERE I SERVED AS AMERICA'S REPRESENTATIVE.

SEVERAL DAYS AGO, PREPARING FOR OUR TRIP, I CAME ACROSS THESE WORDS OF AN OLD CHINESE PROVERB: "ONE GENERATION PLANTS THE SEEDS . . . ANOTHER GETS THE SHADE."

THINK OF THE INVESTMENTS WE MAKE IN OUR FUTURE AS AMERICA'S SEEDS. WE CAN LIFT HEARTS, CHANGE LIVES, AND SHAPE THE 1990s.

THAT'S A TALL ORDER. BUT IT HAS BEEN THE AMERICAN
STORY FOR OVER TWO HUNDRED YEARS. LET'S WRITE IT
TOGETHER.

THANK YOU, GOD BLESS YOU, AND GOD BLESS AMERICA.

#

Finances

Financial data, June 30, 1988

Endowment, market value	\$1,141,302,000
Investment in physical plant	\$ 566,112,000
Operating budget	\$ 443,723,000
Voluntary gift support	\$ 50,623,000

Educational costs, 1988-89

Basic tuition	\$12,450
Average undergraduate room and board	\$ 4,475

Financial aid, 1988-89

Undergraduate financial aid usually combines scholarships, grants, loans, and part-time campus employment. Approximately one-half of the undergraduate student body will receive some form of financial aid based on need during the 1988-89 academic year. The average freshman scholarship in 1988-89 is \$7,420; total awards range up to \$18,000.

Total undergraduate scholarship funds	\$17,895,321
By source:	
Endowment income and private gifts	\$ 2,253,239
Other university sources	\$13,445,020
Government sources	\$ 2,197,062
Total loan funds	\$ 6,274,254
Part-time university employment	\$ 1,444,100
Total undergraduate financial aid	\$25,613,675

Graduate and professional students receive aid through loans, school and departmental scholarships and fellowships, and stipends as teaching or research assistants.

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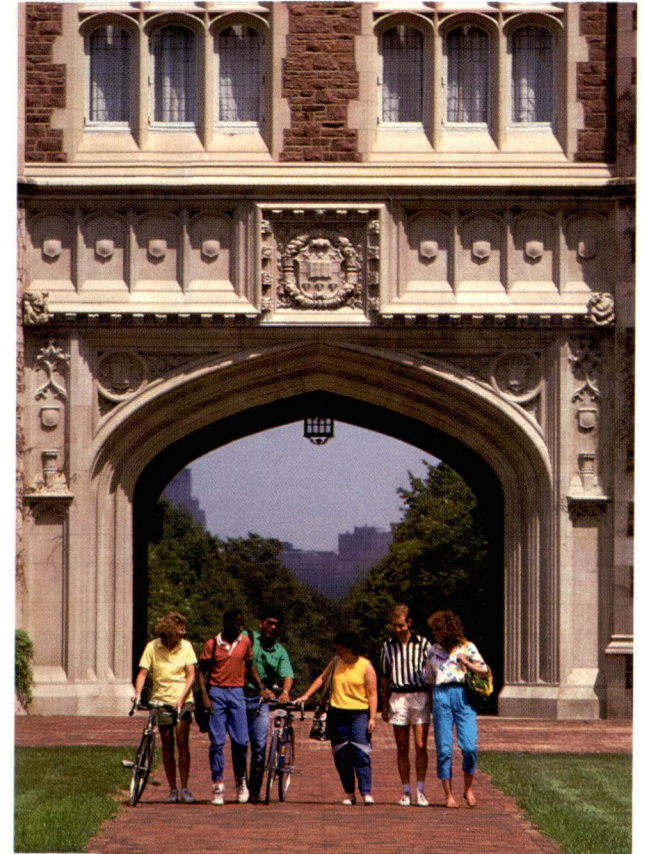
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FACTS

Resources

University libraries

The Washington University Libraries contain the largest collection of any private academic library system between the Mississippi River and California. John M. Olin Library—the central university library—and 14 school and departmental libraries house many important and unique collections; many provide state-of-the-art computerized information retrieval. In 1988 the combined holdings comprise 2,169,707 books and bound periodicals; 18,372 current serial subscriptions; 1,683,369 microform units; 8,122,535 manuscript items; 28,966 recordings, discs, and tapes; 4,119 films, filmstrips, and slides; 88,113 maps; and hundreds of electronic databases.

Computing facilities

Faculty, students, and staff have access to many computing resources, including the Computing Facilities' five large computing systems, which support more than 1,000 terminals, 15 service locations, and numerous microcomputer systems. The John M. Olin School of Business has installed a state-of-the-art computer system in its new John E. Simon Hall. The Center for Engineering Computing offers high-capacity graphics and engineering work stations. The Institute for Biomedical Computing applies computer techniques to biological and medical problems. New computer centers in the residence halls, mathematics, and the social sciences also provide resources for students and faculty. The University has entered into a three-year agreement with Digital Equipment Company to develop a University-wide network that will connect computers throughout many departments and laboratories on both campuses. Computer experts and managers are trained in the University's nationally recognized Center for the Study of Data Processing.

Art collections

A descendant of the first museum west of the Mississippi, the University's Gallery of Art is now in its second century. The permanent collection preserves 2,700 objects ranging from Egyptian mummies through Rembrandt etchings to Calder constructions and works by Picasso. Each year the gallery organizes special loan exhibitions, presents traveling shows, displays faculty and student exhibits, and arranges installations of the permanent collection. Significant publications, lectures, and symposia accompany the varied exhibitions at the Gallery.

Performances

Edison Theatre in the Mallinckrodt Center is one of the Midwest's foremost presenters of professional performing artists, focusing on high-quality, innovative artists in theatre, dance, and music. The Edison is also the site of mainstage productions in theatre and dance by the Performing Arts Department. Events in the 1988-89 OVATIONS! series include the Philip Glass Ensemble, the Peking Opera, National Theatre of the Deaf, and the San Francisco Mime Troupe; departmental productions included *Murder in the Cathedral* (for the T. S. Eliot centennial), *Desire Under the Elms* (for the Eugene O'Neill centennial), and *A Midsummer Night's Dream*.

Lectures

The major sponsor of campus lectures is the Assembly Series, which presents a diverse program of speakers and programs on Wednesday mornings at 11 a.m. when no classes are scheduled



Howard Nemerov was named Poet Laureate of the United States in 1988.

to allow both faculty and students to attend. Visiting speakers often participate in faculty-student luncheons and discussions following the lectures. Recent programs include Bill Moyers, Freeman Dyson, Anthony Lewis, Robert Hughes, Bryant Gumbel, and Toni Morrison.

How Washington University Compares

As a leading independent university, Washington University compares most favorably with similar institutions across the nation. The following is a sampling of independent universities from the West, South, Midwest, and East Coast. The data reflect such factors as endowment, gift support, and research funding. This information is not all-inclusive, nor are the comparisons intended to be a rank-order listing.

Washington University ranked 19th out of 204 top national universities in U.S. News and World Report's fourth annual study of America's best colleges. The study also placed Washington University in the top five for quality faculty among national universities.

Total volumes in library, 1987-88

Harvard University	11 million
Columbia University	5.63 million
Stanford University	5.60 million*
University of Chicago	4.97 million
Princeton University	4 million
Northwestern University	3.3 million
Washington University in St. Louis	2.17 million
Emory University	2.01 million
Johns Hopkins University	2 million
Dartmouth College	1.69 million

*1986-87 figure

Doctoral degrees awarded, 1987-88*

Harvard University	1193
Stanford University	804
University of Chicago	533
Massachusetts Institute of Technology	516
Washington University in St. Louis	497
Emory University	447
Northwestern University	376
Johns Hopkins University	336
Princeton University	269
Dartmouth College	105

*Includes professional doctorates as well as Ph.D.s

Federal research support, 1987-88

Stanford University	339 million*
Columbia University	214.3 million
Johns Hopkins University	183.8 million**
Harvard University	154.5 million
Washington University in St. Louis	104.3 million
University of Chicago	81 million
Northwestern University	65.9 million
Princeton University	61 million
Dartmouth College	33.5 million
Emory University	22 million

*1986-87 figure

**Does not include Applied Physics Lab support

Voluntary gift support, 1987-88

Stanford University	181.9 million
Harvard University	155.1 million
Columbia University	102 million
Princeton University	78.6 million
University of Chicago	74.9 million*
Johns Hopkins University	70.6 million
Northwestern University	66.0 million
Washington University in St. Louis	50.6 million**
Dartmouth College	35.4 million
Emory University	29.5 million*

*1986-87 figure

**The ALLIANCE FOR WASHINGTON UNIVERSITY, a record-setting campaign that raised \$630.5 million, concluded Dec. 31, 1987, halfway through FY88.

Endowment funds, 1987-88

Harvard University	4.02 billion*
Princeton University	2.308 billion
Stanford University	1.8 billion*
Columbia University	1.357 billion
Washington University in St. Louis	1.141 billion
University of Chicago	897.8 million
Emory University	773.9 million
Northwestern University	686.2 million
Dartmouth College	570 million
Johns Hopkins University	530 million

*Figure for 1986-1987

In 1988, Washington University's endowment ranked seventh among all universities, public and private.

Washington University in St. Louis

Founded: 1853

Chancellor: William H. Danforth, M.D.

Washington University in St. Louis is an independent university known internationally for excellence in teaching and research and for the quality of its faculty and student body. Founded in 1853 as a nondenominational community of scholars, the University ranks among the nation's leaders in higher education. Its undergraduate, graduate, and professional programs are highly regarded.

Medium-sized and coeducational, Washington University has two campuses on the western edge of St. Louis separated by Forest Park, site of the 1904 World's Fair and one of the nation's largest metropolitan parks. St. Louis is a cosmopolitan area, offering a wide array of social, cultural, and recreational opportunities for its 2.4 million residents.

The 169-acre Hilltop Campus, bordering on three sides the communities of Clayton and University City, features predominantly Collegiate Gothic architecture in its academic buildings, several of which are listed on the National Register of Historic Places. It has an adjacent complex of modern student residence halls. The 59-acre Medical Campus in the fashionable Central West End district includes the Schools of Medicine and Dental Medicine and the associated hospitals and institutes of the Washington University Medical Center. With other areas, including the Tyson Research Center southwest of the city, the University comprises 2,267 acres and more than 90 major buildings.

The University offers more than 80 programs and 1,400 courses leading to bachelor's, master's, and doctoral degrees in a broad spectrum of interdisciplinary as well as traditional fields, with additional opportunities for minor concentrations and individualized programs.

Academic Divisions

Schools and Colleges

School of Architecture
 College of Arts and Sciences
 Graduate School of Arts and Sciences
 John M. Olin School of Business
 School of Dental Medicine
 School of Engineering and Applied Science
 School of Fine Arts
 School of Law
 School of Medicine
 George Warren Brown School of Social Work
 School of Technology and Information Management
 University College

Centers, Institutes, and Interdisciplinary Units

Center for the Study of American Business
 Division of Biology and Biomedical Sciences
 Institute for Biomedical Computing
 McDonnell Center for Cellular and Molecular Neurobiology
 Construction Management Center

Center for the Study of Data Processing
 Center for Genetics in Medicine
 McDonnell Center for Studies of Higher Brain Function
 Center for the History of Freedom
 Office of International Studies
 Center for the Study of Islamic Societies and Civilizations
 Markey Center for Research on the Molecular Biology of Human Disease
 Center for Plant Science & Biotechnology
 Center for Political Economy
 Center for the Study of Public Affairs
 McDonnell Center for the Space Sciences
 Urban Research and Design Center



Joseph E. Varner, Rebstock Professor of Biology.

Faculty

Washington University's faculty are distinguished both for their teaching and for their research activities. Virtually all of the full-time teaching faculty hold the doctorate or final professional degree in their fields, and the same professors often teach both undergraduate and graduate courses.

Eighteen Nobel Laureates have been associated with Washington University, eight doing the major part of their pioneering research here. Others recognized for their scholarly contributions include: 21 members of the National Academy of Sciences and 14 members of that academy's Institute of Medicine; 18 members of the American Academy of Arts and Sciences; 2 members of the American Philosophical Society; 2 members of the Academy of American Poets; 5 members of the American Academy and Institute of Arts and Letters; 1 member of the National Academy of Engineering; 1 Lifetime Fellow of the international Linnaean Society; and 1 recipient of the National Medal of Arts and 2 of the National Medal of Sciences. Current faculty have won the Pulitzer Prize, National Book Critics Circle Award, and other major literary prizes; national and international fellowships, including 2 MacArthur Fellowships; awards for teaching, research, and service; and honors from world governments. More than 250 professional and scholarly journals are edited on campus.

Total faculty, Fall 1988

Full-time 1,480
 Part-time (including clinical medical staff)..... 1,363

Full-time faculty by school

Architecture.....	17
Arts and Sciences	364
Business.....	44
Dental Medicine.....	35
Engineering	82
Fine Arts	20
Law	30
Medicine.....	869
Social Work.....	19
Total (exclusive of research staff)	1,480

Research

Virtually all faculty members engage in research activities, including both scholarly and creative efforts, in addition to teaching. Besides the distinctions cited in the faculty profile, a recent one-year record of faculty publications and creative works contained more than 2,000 entries comprising books, articles and reviews, reports, musical compositions, and art exhibits.

Funding for faculty research comes from many sources, including the federal government, corporations, foundations, non-profit agencies, individuals, and the University itself. During fiscal 1988, \$129 million was received in total research support, including \$104 million in federal obligations. In a 1986 National Science Foundation study, Washington University ranked 10th among private universities receiving federal support for research and development. The University ranked 7th among private institutions receiving Department of Health and Human Services funding, and 11th among all universities.

Students

Washington University students represent all 50 states and more than 70 foreign countries and territories. Over 85 percent of the undergraduates come from outside the St. Louis area, and more than half are from more than 500 miles away. Fifty-five percent of the undergraduates are men, 45 percent women, and 12 percent are minority students. The student-faculty ratio is 9:1.

Academic achievement is characteristic of the University's undergraduate students. Washington University ranks among the top 20 schools in the nation in enrolling National Merit Scholars. Approximately 70 percent of 1988 freshmen ranked in the top 10 percent of their high school classes.

In 12 straight years of top 10 finishes in the William Lowell Putnam Mathematical Competition, Washington University has placed first or second seven times. The School of Law's mock trial team has advanced to national competition for eight straight years, winning first place in 1983 and 1986. Undergraduate teams in recent years have taken top honors in national and regional competitions, including the College Bowl, the Mathematical Competition in Modeling, National and International Client Counseling Competition, McIntire Commerce Invitational business case competition, and National Computer Programming Competition. Graduates regularly receive prestigious graduate study awards, including Fulbright, Marshall, Beinecke, and Truman Scholarships and Mellon, Putnam, National Science Foundation, and National Graduate Fellowships.

Freshman admissions by school, Fall 1988

	Applicants	Matriculants
Architecture.....	507	58
Arts and Sciences	5,468	725
Business.....	1,139	149
Engineering	1,405	208
Fine Arts	400	76
Total	8,920	1,216

Enrollment, Fall 1988

Undergraduate	5,075
Graduate and professional	4,266
University College and evening programs	2,175
Other	94
Total.....	11,554
Summer School 1988.....	2,613

Enrollment by school

Architecture.....	319
College of Arts and Sciences	2,752
Graduate School of Arts and Sciences.....	1,076
Business.....	1,274
Dental Medicine.....	217
Engineering.....	1,584
Fine Arts.....	329
Law.....	718
Medicine.....	780
Social Work.....	236
University College and evening programs	2,175
Other	94
Total.....	11,554

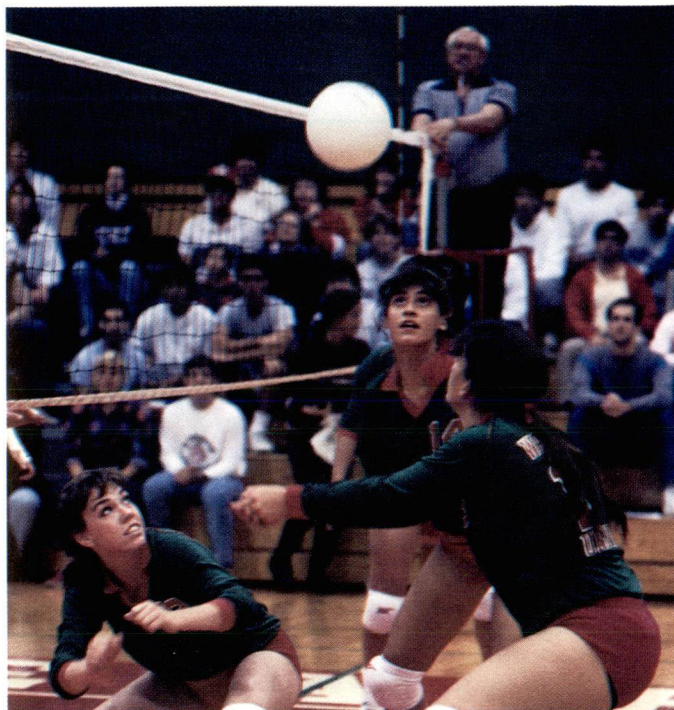
Degrees awarded, 1987-88

Bachelor's.....	1,307
Master's	707
Doctoral	472
Ph.D.	98
J.D.	177
D.M.D.	66
M.D.	117
D.Sc.	14
Advanced Graduate Certificate in Education	2
Total degrees awarded	2,488

Service and Community

As a not-for-profit private institution operating in the public interest, Washington University provides major resources in health care, community service, and for the economy of the region and the nation. The University and Washington University Medical Center institutions, employing almost 16,000 persons, constitute the area's third largest employer, with an estimated combined financial impact on the regional economy of \$876 million in fiscal 1988.

Through the Washington University Medical Center, the University's Schools of Medicine and Dental Medicine cooperate



The Washington University women's volleyball team has been ranked in NCAA's Division III top ten for the past two seasons.

with Barnes, Barnard, Jewish, and the St. Louis Children's Hospitals, and the Central Institute for the Deaf to provide teaching, research, and health care. The Medical Center is one of the most highly respected in the world.

Clinics, such as those in the Schools of Medicine, Dental Medicine, and Law, serve the community's health and legal needs. Students in the School of Social Work, as part of their practical training, contribute many hours of voluntary work to metropolitan social service agencies.

The Washington University Medical Center Redevelopment Corporation is largely responsible for the revitalization of the residential and commercial areas in the surrounding neighborhoods of St. Louis's Central West End.

The University is regarded as one of the most valuable cultural assets of the St. Louis metropolitan area because of the quality of performances, lectures, concerts, exhibits, and other programs open to the public, featuring scholars, authors, public figures, and artists of national and international renown.

Activities

Student life

Students may choose from over 200 student organizations, including fraternities and sororities, sports clubs, preprofessional organizations, programming boards, student government associations, and many special-interest groups. Student Union, the student governing body, and the Congress of the South Forty,

which governs the residence halls, along with the five undergraduate school councils, work closely with administrators and faculty to develop a strong sense of community on campus. The Office of Student Activities helps students identify extracurricular activities to meet individual interests, and assists student groups in planning a variety of social, cultural, educational, and recreational programs.

Washington University's 18 residence buildings, the oldest built in 1960, offer single and double rooms, suites, and apartment-style units, each with its own heating and air-conditioning. Wohl Center in the South Forty residence complex houses student cafeterias, gift and food stores, lounges, a snack bar, ice cream shop, and game and meeting rooms. The Millbrook Complex has a food store and outdoor swimming pool.

Athletics

Washington University is a founding member of and competes in the University Athletic Association, along with the following universities: Brandeis, Carnegie Mellon, Case Western Reserve, Chicago, Emory, Johns Hopkins, New York, and Rochester.

Intercollegiate sports include baseball, basketball, cross country, football, golf, soccer, swimming, tennis, and track for men; and basketball, cross country, swimming, tennis, track, and volleyball for women. Intramural and recreational sports bring several thousand students, faculty, and staff members into both organized and informal competitions each year.

The athletic complex, dedicated in fall 1985 and among the finest in the country, includes a fieldhouse, recreational gyms, swimming pool, racquetball and squash courts, weight rooms, eight-lane 400-meter synthetic track, lighted ballfields, and tennis courts, among other facilities. The University was the site of the 1904 World Olympics, the first ever held in the western hemisphere.

Alumni

Of the 80,420 alumni on record in July 1988, the majority live in the other 49 states and numerous foreign countries. About 29,000 live and work in the St. Louis area.

The Alumni Association is an organization of all alumni from the undergraduate, graduate, and professional schools. It is represented by an Alumni Board of Governors, whose chairman and executive vice-chairman are ex-officio members of the University's Board of Trustees.

Alumni Chapters, organizations of local alumni in 34 cities, bring activities of the Association and information about the University to members across the country. The chairman of each chapter is a member of the Alumni Board of Governors.

For more information about Washington University alumni activities and opportunities for involvement, contact the Alumni Office, Washington University, Campus Box 1210, One Brookings Drive, St. Louis, Missouri 63130. Telephone (314) 889-5122.

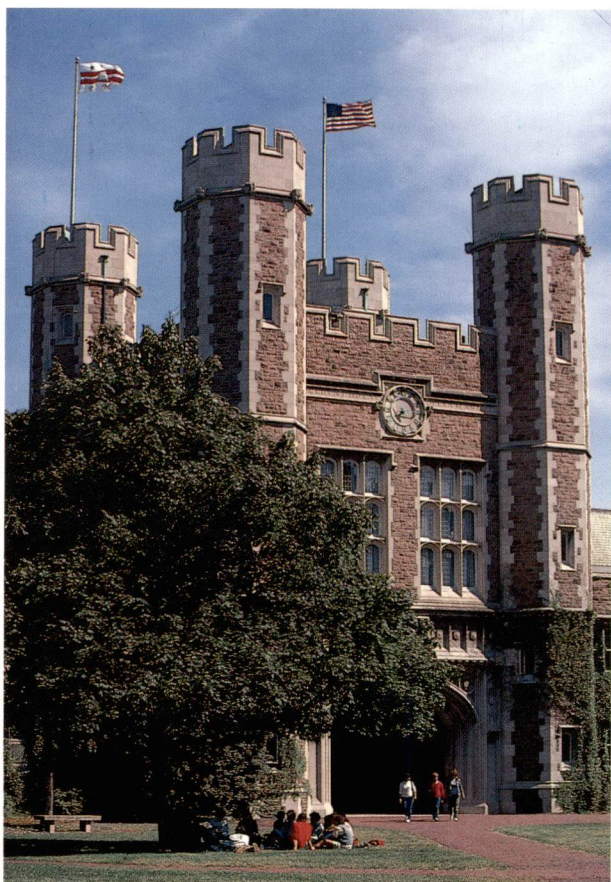
Finding the best students

Alumni and friends of the University often help identify high school students who would benefit from an education here. Names and addresses of talented prospective students should be sent to the Office of Admissions, Washington University, Campus Box 1089, One Brookings Drive, St. Louis, Missouri 63130. Telephone (314) 889-6000.



Washington

WASHINGTON · UNIVERSITY · IN · ST. LOUIS



**VISITORS
GUIDE**

Washington University

Washington University in St. Louis is an independent university internationally known for excellence in teaching and research and for the quality of its faculty and student body.

The University was founded in 1853 as a nondenominational community of scholars. Today the most distinguished professors share their knowledge with a truly outstanding group of undergraduate students. The University, medium-sized and coeducational, ranks among the leaders nationally in the number of National Merit Scholars enrolled. The graduate and professional programs are equally well regarded.

Situated on the western edge of St. Louis, Washington University has two campuses separated by Forest Park, site of the 1904 World's Fair and one of the nation's largest metropolitan parks. The St. Louis region is cosmopolitan, offering a wide array of social, cultural, and recreational opportunities for its 2.4 million residents.

The 169-acre Hilltop Campus, bounded on three sides by the communities of Clayton and University City, features predominantly collegiate gothic architecture in its academic buildings and has an adjacent complex of modern student residence halls. The 59-acre Medical Campus in the fashionable Central West End district includes the Schools of Medicine and Dental Medicine and the associated hospitals and institutes of the Washington University Medical Center. With other tracts, including the Tyson Research Center southwest of the city, the University comprises 2,267 acres and over 90 major buildings.

The University offers more than 80 programs and 1,400 courses leading to bachelor's, master's, and doctoral degrees in a broad spectrum of traditional and interdisciplinary majors with additional opportunities for minor concentrations and individualized programs.

Schools and Colleges

School of Architecture

College of Arts and Sciences

Graduate School of Arts and Sciences

John M. Olin School of Business

School of Dental Medicine

School of Engineering and Applied Science

School of Fine Arts

School of Law

School of Medicine

George Warren Brown School of Social Work

School of Technology and Information Management

University College

Cover photo: Brookings Hall on the Hilltop Campus