

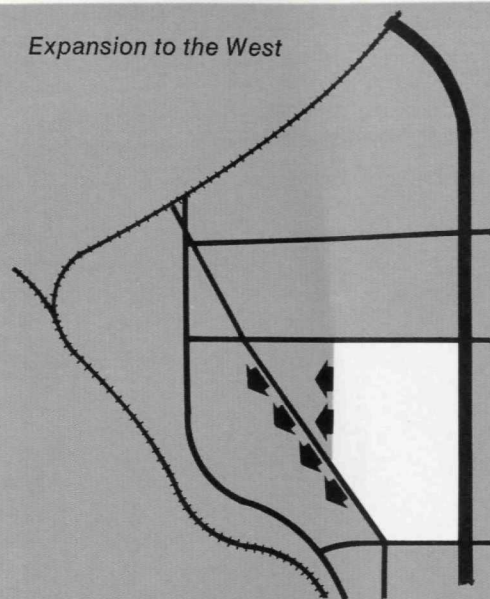
THE  
MAY  
1965

# GEORGIA TECH

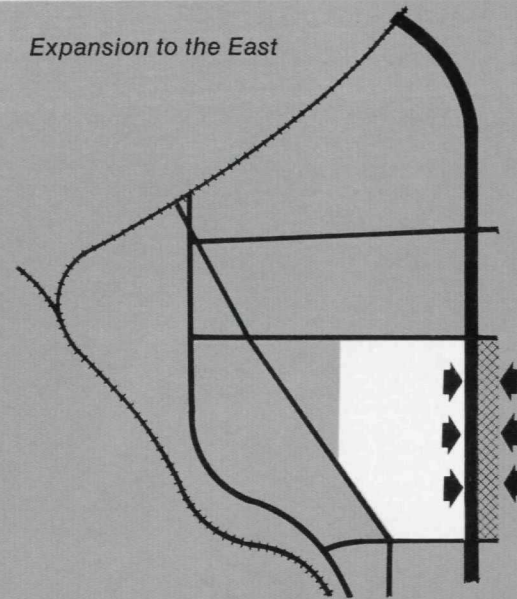
ALUMNUS

## A BOLD FUTURE — THE COMPREHENSIVE CAMPUS DEVELOPMENT PLAN

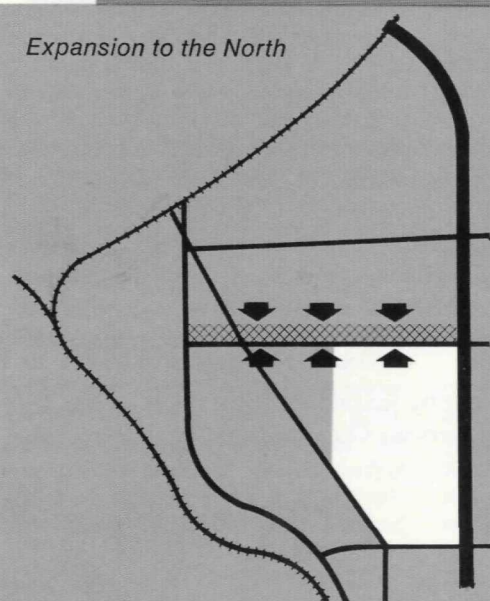
*Expansion to the West*



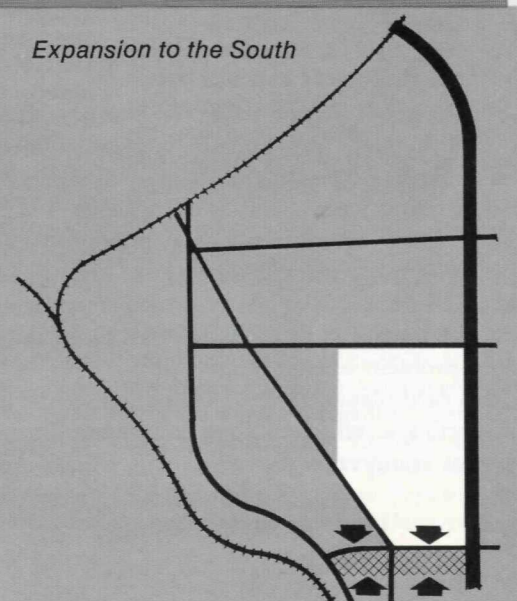
*Expansion to the East*



*Expansion to the North*



*Expansion to the South*







## How about a friendly game of cards?

Watch out for our Gene Wollaston, though. He stacks the deck. In fact, he's already stacked 80 decks—of computer cards—to build a mathematical model to solve important refinery problems. With his special skills, Dr. Wollaston helps determine proper product yields and properties from key refinery operations. The final result should be an improved product—at a tremendous saving of time and money. (Once the model is built, the cost of solving a problem is as little as \$3.00.)

So, as a card player, Gene's helping to take the gamble out of running a refinery. No mean accomplishment for a chemical engineer two years out of Illinois Institute

of Technology.

You're not a card player? Don't worry. As long as you're looking for a meaningful challenge, your opportunity may be here at American Oil. We're also experimenting with fuel cells, spatial environment, and rust protection in car engines—to mention a few of our diverse fields of interest. Some of them may interest you, whether you're in Engineering, Physics, Chemistry, Mathematics, or Metallurgy.

You can find out by writing for more information. To J. H. Strange, American Oil Company, P. O. Box 431, Whiting, Indiana.



AMERICAN OIL COMPANY

## RAMBLIN' — the editor's note

▲ THE UNTIMELY DEATH of Freddy Lanoue on March 20 was a terrible blow to Georgia Tech and especially to us who were close to the man. When we heard the news on that Saturday morning from Bob Eskew the first thought was — *this can't happen*. Somehow, he seemed indestructible, like a short, bald version of superman put here on earth to remind all of us of our responsibilities to truth, our fellow men, and ourselves.

The second thought was even more frightening — *who will the cowards turn to for help now that he has gone*.

Any of you who happened to read our column of February know how we felt about that little, gimpy-legged fighter of constant battles against the great dragon, fear. One of the proudest moments of our life came when Freddy, who was a compulsive letter writer, dropped us a note. Here in part is what it said:

"I was truly flabbergasted when Janie showed me that writeup about me and drownproofing. Of course, no man is a hero to his valet, but we all have varying degrees of Walter Mitty in us that allow us to imagine an aspect of ourselves which generally exists only in that imagination. One of the things about this that I am happy about is that your awareness of the real scope of this drownproofing came partly from your very perceptive and charming Janie and partly from talking to other Tech people, old and young, which convinces me that I'm not merely imagining.

"This business of self-discipline that I'm so gung-ho about has been subjected to so many sneers and so much derision from alleged educators that many times I have wondered if I were the one who were nuts. It appears quite possible that other people are right and that actually I am just an ornery old sadist disguising my venom beneath a cloak of synthetic Spartan virtue."

Freddy Lanoue was no man to mince words.

\* \* \*

▲ FREDDY was standing on the threshold of fulfilling a long-term ambition when the end came from a cerebral hemorrhage in a naval hospital in Beaufort, South Carolina. He was just beginning his program of drownproofing the toughest fighting men in the world — the United States Marines. He had

talked to us at length before about how much this new project to him and to his philosophy. The least got a chance to get the project under way was something we could do.

When the word got out, the word poured in from all over the world from the great to the lonely graduate who had walked out of our dy's drownproofing course while a student and regretted it ever since he managed to con a campus administrator into excusing him.

At the memorial service, the man talked about his achievement, toughness, and his dedication. He spoke of his love of children — the love of his real caring hidden beneath that gruff manner that he had with the words could have gone unspoken could these. The children — once adjusted to the fact that here was a first and perhaps the only absolute disciplinarian they would ever encounter their lives understood far better than educators.

The chapel was full that afternoon. But all we could see were the children, boys and girls and men and women, painfully walked or were carried to the big room to hear the service. Freddy Lanoue could never have given them something that nobody else had been able to — confidence in their own ability to equal the more fortunate in any one segment of their lives.

\* \* \*

▲ AMONG the more fortunate people helped in his lifetime was our healthy 13-year-old daughter, 13, who studied diving under him a few summers ago. Despite the fact that in many ways her program was a disaster, Marilu will never forget the man who was planning to return to try again in spring. And so taken with the work was she that her seventh-grade theme written in January was entitled "My Career as a Teacher of Swimming, Diving, and Drownproofing."

Buried deep in the 2,500 words of the paper (which her father never had a chance to edit, thank God) was a paragraph that summed up the legacy of Freddy Lanoue more eloquently than any of us who profess to being able to do:

MAY 1965





## How about a friendly game of cards?

our Gene Wollaston, though. He stacks  
act, he's already stacked 80 decks—of  
—to build a mathematical model to solve  
ry problems. With his special skills, Dr.  
determine proper product yields and  
key refinery operations. The final result  
proved product—at a tremendous saving  
ey. (Once the model is built, the cost of  
m is as little as \$3.00.)  
player, Gene's helping to take the gamble  
refinery. No mean accomplishment for  
neer two years out of Illinois Institute

of Technology.

You're not a card player? Don't worry. As long as  
you're looking for a meaningful challenge, your oppor-  
tunity may be here at American Oil. We're also experi-  
menting with fuel cells, spatial environment, and rust  
protection in car engines—to mention a few of our diverse  
fields of interest. Some of them may interest you, whether  
you're in Engineering, Physics, Chemistry, Mathematics,  
or Metallurgy.

You can find out by writing for more information. To  
J. H. Strange, American Oil Company, P. O. Box 431,  
Whiting, Indiana.



AMERICAN OIL COMPANY

## RAMBLIN' — the editor's notes

▲ THE UNTIMELY DEATH of Freddy Lanoue on March 20 was a terrible blow to Georgia Tech and especially to us who were close to the man. When we heard the news on that Saturday morning from Bob Eskew the first thought was — *this can't happen*. Somehow, he seemed indestructible, like a short, bald version of superman put here on earth to remind all of us of our responsibilities to truth, our fellow men, and ourselves.

The second thought was even more frightening — *who will the cowards turn to for help now that he has gone*.

Any of you who happened to read our column of February know how we felt about that little, gimpy-legged fighter of constant battles against the great dragon, fear. One of the proudest moments of our life came when Freddy, who was a compulsive letter writer, dropped us a note. Here in part is what it said:

"I was truly flabbergasted when Janie showed me that writeup about me and drownproofing. Of course, no man is a hero to his valet, but we all have varying degrees of Walter Mitty in us that allow us to imagine an aspect of ourselves which generally exists only in that imagination. One of the things about this that I am happy about is that your awareness of the real scope of this drownproofing came partly from your very perceptive and charming Janie and partly from talking to other Tech people, old and young, which convinces me that I'm not merely imagining.

"This business of self-discipline that I'm so gung-ho about has been subjected to so many sneers and so much derision from alleged educators that many times I have wondered if I were the one who were nuts. It appears quite possible that other people are right and that actually I am just an ornery old sadist disguising my venom beneath a cloak of synthetic Spartan virtue."

Freddy Lanoue was no man to mince words.

▲ FREDDY was standing on the threshold of fulfilling a long-term ambition when the end came from a cerebral hemorrhage in a naval hospital in Beaufort, South Carolina. He was just beginning his program of drownproofing the toughest fighting men in the world — the United States Marines. He had

talked to us at length before he left about how much this new project meant to him and to his philosophy. That he at least got a chance to get the program under way was something we can cling to.

When the word got out, the tributes poured in from all over the world — from the great to the lonely Tech graduate who had walked out of Freddy's drownproofing course while he was a student and regretted it every day since he managed to con a campus administrator into excusing him.

At the memorial service, the minister talked about his achievements, his toughness, and his dedication. He talked of his love of children — the love, the real caring hidden beneath that fiercely gruff manner that he had with them. But the words could have gone unsaid as could these. The children — once they adjusted to the fact that here was the first and perhaps the only absolute disciplinarian they would ever encounter in their lives understood far better than the educators.

The chapel was full that afternoon. But all we could see were the crippled boys and girls and men and women who painfully walked or were carried into the big room to hear the service. To them Freddy Lanoue could never die. For he had given them something that nobody else had been able to — a confidence in their own ability to be the equal of the more fortunate in at least one segment of their lives.

▲ AMONG the more fortunate he had helped in his lifetime was our own healthy 13-year-old daughter, Marilu, who studied diving under him a couple of summers ago. Despite the fact that in many ways her program was a failure, Marilu will never forget the man. She was planning to return to try again this spring. And so taken with the man's work was she that her seventh-grade theme written in January was entitled "My Career as a Teacher of Swimming, Diving, and Drownproofing."

Buried deep in the 2,500 words of that paper (which her father never got a chance to edit, thank God) was a paragraph that summed up the legacy of Freddy Lanoue more eloquently than any of us who profess to being a writer could possibly do:

"Mr. Lanoue never has heard of the word 'no' and he will not hear it. Even though many of his students can't walk or can't touch, he has no pity, and he makes them feel they are really walking or touching. Mr. Lanoue may be cruel in his judgments at times, but it is good for retarded children to understand that they can do anything they put their minds to."

▲ AT THE CHAPEL that afternoon, a group of men whose lives had been touched by Freddy Lanoue talked of how to carry on the torch that he once told each of them must remain flaming.

The family had asked for contributions to the Crippled Children's Society and all of us had done that. Johnny and Buck Hiles, his two greatest pupils as a swimming coach, came up with the idea of setting up a scholarship fund for his youngest daughter, Nancy, who is the same age as Marilu and had once been her diving partner. There will be no pressure for money, just a simple letter to those who were the closest to him. If you are interested in helping with this fund, you may receive one of the letters detailing the program by writing to this editor. It's as simple as that.

▲ OTHERS are carrying the main torch. Charlie Wiggin, ME '60 and a former Tech swimming captain, was Freddy's favorite. A few months ago Charlie arrived back in Atlanta to put the pieces of his life back together that had been shattered by the explosion of a spear-gun during his stint as a Navy frogman. While he was hanging around, Charlie took the drownproofing program again just to have something constructive to do. After Freddy's death, the Athletic Association hired Charlie to help with the program for the coming quarter. They couldn't have made a better choice. Nor could they have made a better selection than Herb McAuley for swimming coach to replace Freddy. He was another of Freddy's favorite pupils and for fifteen years he coached the Tech freshmen in swimming.

▲ THE REAL LOSERS in all of this are not those of us who were his friends. The children still to come with or without physical defects or fears are the ones we must pity. They will never know the greatest master sergeant of them all. And that is the tragedy, for in a time of almost carte blanche permissiveness for the young, the master sergeants are absolutely essential to our survival. B.W.





**THARPE & BROOKS**  
INCORPORATED

MORTGAGE BANKERS

INSURORS

ATLANTA  
HAPEVILLE DECATUR SMYRNA  
COLUMBUS SAVANNAH  
ATHENS MACON AUGUSTA

GEORGIA

ROBERT THARPE '34 J. L. BROOKS '39



*Greetings to students and  
alumni everywhere. We share  
your interest in the advancement  
of our alma mater, Georgia Tech.*

**ROBERT AND COMPANY  
ASSOCIATES**  
ENGINEERING DIVISION  
ATLANTA

*Printers*

OF NATIONAL AWARD  
WINNING

**GEORGIA TECH  
ALUMNUS**

AND OTHER PUBLICATIONS  
OF DISTINCTION

**HIGGINS-  
MCARTHUR  
Company**

302 HAYDEN STREET, N.W.  
ATLANTA 13, GEORGIA



**LOOK FOR QUALITY**

**is a sure thing  
in each hot water  
generator built by FINNIGAN**

Finnigan Hot Water Generators are engineered to give you large quantities of hot water for low operating cost. The finest materials, creative skill and quality construction assure efficient performance... "Fabricated by Finnigan" assures quality. Finnigan builds hot water generators to your specifications. Call, wire or write today for complete information with no obligation to you.

W. J. McAlpin, President, '27

W. J. McAlpin, Jr., Vice-President, '57

F. P. DeKoning, Secretary, '48

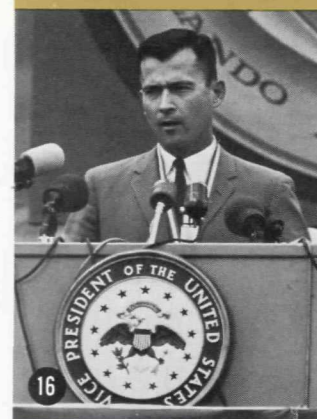
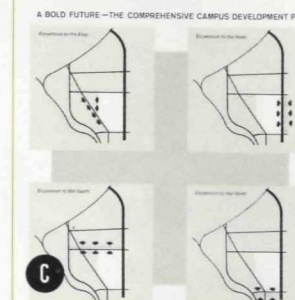


**J. J. FINNIGAN CO., INC.**

P. O. Box 2344, Station D Atlanta 18, Georgia

Birmingham 5, Alabama, P. O. Box 3285A  
Dallas 19, Texas, P. O. Box 6597  
Greensboro, North Carolina, P. O. Box 1589  
Houston 6, Texas, P. O. Box 66099  
Jacksonville 3, Florida, P. O. Box 2527  
Denver 22, Colorado, 3201 South Albion Street  
Kansas City 41, Missouri, P. O. Box 462  
Little Rock, Arkansas, 4108 C Street  
Memphis 11, Tennessee, 3683 Southern Avenue  
New Orleans 25, Louisiana, P. O. Box 13214  
Richmond 28, Virginia, 8506 Ridgeview Drive

THE MAY 1965 GEORGIA TECH ALUMNUS



THE  
MAY  
1965

**GEORGIA**

Volume 43

## THE COVER

The symbol of the Perkins and Will Report which is used to portray the directions in which the campus will develop in the next twenty years. For all the details of the plan, see page six of this issue.

## CONTENTS

3. RAMBLIN'—the final tribute to a tough and tender
6. A BOLD FUTURE—the new campus plan
14. LIFTOFF ON APRIL 1—the groundbreak
16. TOUCHDOWN IN ORLANDO—Astronaut
19. THE LECTURE—the Alumnus presents
24. PROFILES OUT OF THE PAST—the University
26. THE "T" NIGHT GAME—when spring comes
28. THE GEORGIA TECH JOURNAL—all the news
30. GENUS ACADEMICUS—a look at the Rubens

## THE GEORGIA TECH NATIONAL ALUMNI ASSOCIATION

OFFICERS AND TRUSTEES—Daniel A. McKeever, president  
• Madison F. Cole, Newnan, vice president • W. H. L. Lawrence Gellerstedt, treasurer • Herbert A. B. James R. Dellinger, Jr., Cartersville • J. Leland Jackson • Dan I. MacIntyre, III • Frank Newton, Birmingham • C. Picha • John P. Pickett, Cedartown • James B. Ramo • Robinson, Jr. • William P. Rucker • S. B. Rymer, Jr., C. Jr. • William S. Terrell, Charlotte • John S. Thibadeau • Rome • Thomas H. Hall, III, associate secretary •

## THE GEORGIA TECH FOUNDATION, INC.

OFFICERS AND TRUSTEES—John C. Staton, president  
Henry W. Grady, treasurer • Joe W. Guthridge, executive  
P. Baum, Milledgeville • John O. Chiles • Fuller E. C. Ferst • Y. Frank Freeman, Hollywood • Jack F. G. Hightower, Thomaston • Wayne J. Holman, Jr., New George T. Marchmont, Dallas • George W. McCarty • Mitchell • Frank H. Neely • William A. Parker • H. Sheffield • Hal L. Smith • Howard T. Tellepsen, H. C. Wardlaw, Jr. • Robert H. White • George W. Wood

## THE EDITORIAL STAFF

Robert B. Wallace, Jr., editor • Thomas H. Hall, III, Reynolds, editorial assistant • Mary P. Bowie, class news staff writer •

Published eight times a year—February, March, May, and December—by the Georgia Tech National Alumni Technology; 225 North Avenue, Atlanta, Georgia. Subscriptions in the membership dues. Second class postage paid at A



**THARPE & BROOKS**  
INCORPORATED

MORTGAGE BANKERS

INSURORS

ATLANTA  
APEVILLE DECATUR SMYRNA  
COLUMBUS SAVANNAH  
ATHENS MACON AUGUSTA

GEORGIA  
BERT THARPE '34 J. L. BROOKS '39

Printers

OF NATIONAL AWARD  
WINNING  
GEORGIA TECH  
ALUMNUS  
AND OTHER PUBLICATIONS  
OF DISTINCTION

**HIGGINS-  
MCARTHUR**  
Company

302 HAYDEN STREET, N.W.  
ATLANTA 13, GEORGIA

**G**reetings to students and  
alumni everywhere. We share  
your interest in the advancement  
of our alma mater, Georgia Tech.

**ROBERT AND COMPANY  
ASSOCIATES**  
ENGINEERING DIVISION  
ATLANTA



is a sure thing  
in each hot water  
generator built by FINNIGAN

Finnigan Hot Water Generators are engineered to give you large quantities of hot water for low operating cost. The finest materials, creative skill and quality construction assure efficient performance... "Fabricated by Finnigan" assures quality. Finnigan builds hot water generators to your specifications. Call, wire or write today for complete information with no obligation to you.

W. J. McAlpin, President, '27

W. J. McAlpin, Jr., Vice-President, '57

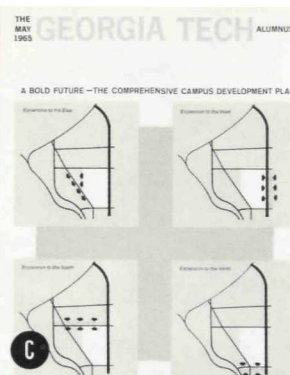
F. P. DeKoning, Secretary, '48



**J.J. FINNIGAN CO., INC.**

P. O. Box 2344, Station D Atlanta 18, Georgia

Birmingham 5, Alabama, P. O. Box 3285A  
Dallas 19, Texas, P. O. Box 6597  
Greensboro, North Carolina, P. O. Box 1589  
Houston 6, Texas, P. O. Box 66099  
Jacksonville 3, Florida, P. O. Box 2527  
Denver 22, Colorado, 3201 South Albion Street  
Kansas City 41, Missouri, P. O. Box 462  
Little Rock, Arkansas, 4108 C Street  
Memphis 11, Tennessee, 3683 Southern Avenue  
New Orleans 25, Louisiana, P. O. Box 13214  
Richmond 28, Virginia, 8506 Ridgeview Drive



THE  
MAY  
1965

**GEORGIA TECH** ALUMNUS

Volume 43

Number 7

## THE COVER

The symbol of the Perkins and Will Report which occupies much of this issue is used to portray the directions in which the campus will be expanding in the next twenty years. For all the details of this major program, please turn to page six of this issue.

## CONTENTS

3. RAMBLIN'—the final tribute to a tough and most important man.
6. A BOLD FUTURE—the new campus plan in pictures, maps, and words.
14. LIFTOFF ON APRIL 1—the groundbreaking of the space complex.
16. TOUCHDOWN IN ORLANDO—Astronaut Young, '52, comes home again.
19. THE LECTURE—the Alumnus presents a first—science fiction.
24. PROFILES OUT OF THE PAST—the University System gets a start.
26. THE "T" NIGHT GAME—when spring comes can fall be far behind.
28. THE GEORGIA TECH JOURNAL—all the news in gazette form.
30. GENUS ACADEMICUS—a look at the Rube Goldbergs of research.

## THE GEORGIA TECH NATIONAL ALUMNI ASSOCIATION

OFFICERS AND TRUSTEES—Daniel A. McKeever, president • Alvin M. Ferst, vice president • Madison F. Cole, Newnan, vice president • W. Roane Beard, executive secretary • L. Lawrence Gellerstedt, treasurer • Herbert A. Bolton, Griffin • L. Massey Clarkson • James R. Dellinger, Jr., Cartersville • J. Leland Jackson, Macon • J. Erskine Love, Jr. • Dan I. MacIntyre, III • Frank Newton, Birmingham • C. T. Oxford, Albany • Dr. Kenneth G. Picha • John P. Pickett, Cedartown • James B. Ramage • Dr. John H. Ridley • Glen P. Robinson, Jr. • William P. Rocker • S. B. Rymer, Jr., Cleveland (Tenn.) • Talbert E. Smith, Jr. • William S. Terrell, Charlotte • John S. Thibadeau, Decatur (Ga.) • Ed L. Yeargan, Rome • Thomas H. Hall, III, associate secretary •

## THE GEORGIA TECH FOUNDATION, INCORPORATED

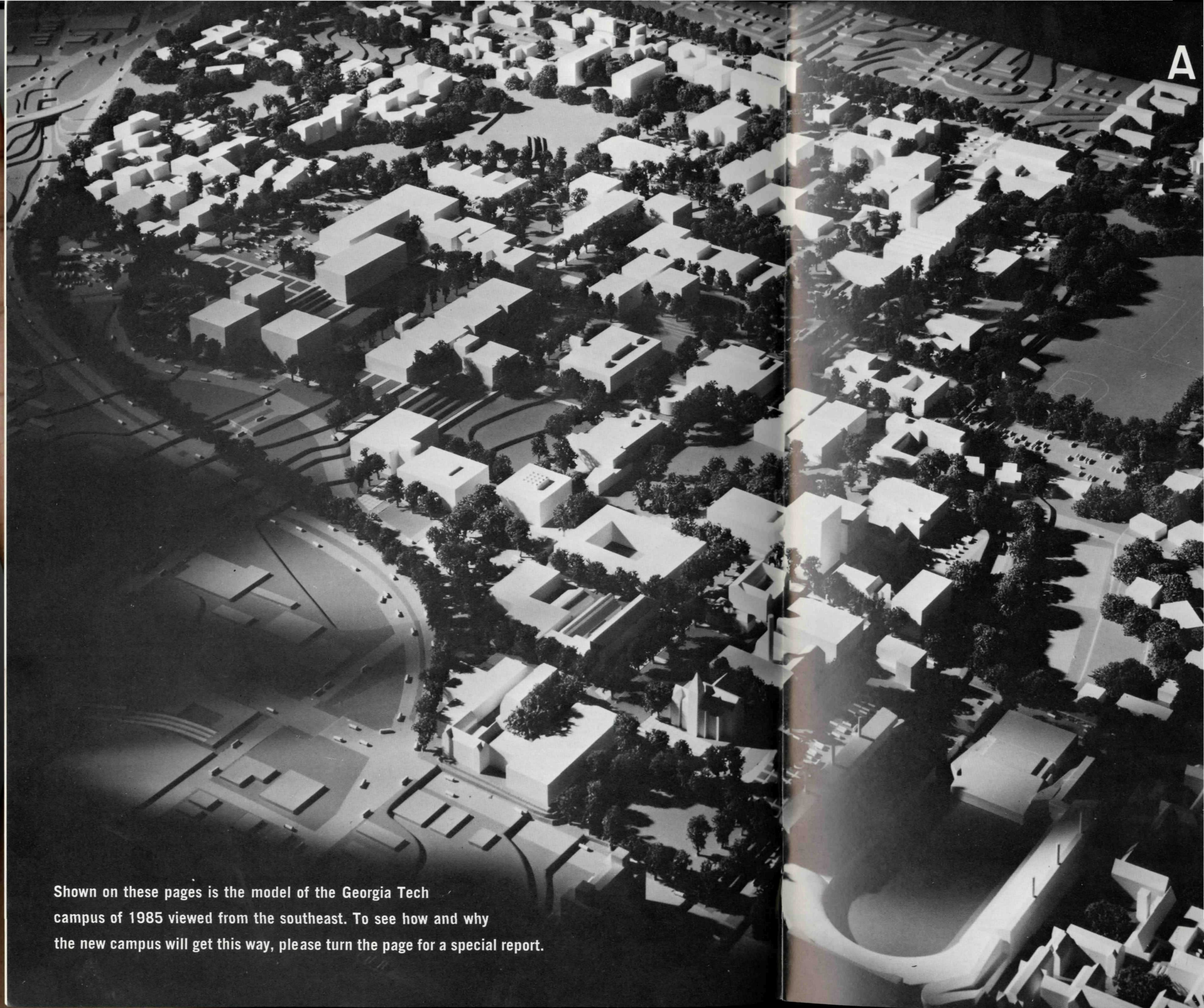
OFFICERS AND TRUSTEES—John C. Staton, president • Oscar G. Davis, vice president • Henry W. Grady, treasurer • Joe W. Guthridge, executive secretary • Ivan Allen, Jr. • John P. Baum, Milledgeville • John O. Chiles • Fuller E. Callaway, Jr., LaGrange • Robert H. Ferst • Y. Frank Freeman, Hollywood • Jack F. Glenn • Ira H. Hardin • Julian T. Hightower, Thomaston • Wayne J. Holman, Jr., New Brunswick • Howard B. Johnson • George T. Marchmont, Dallas • George W. McCarty • Jack J. McDonough • Walter M. Mitchell • Frank H. Neely • William A. Parker • Hazard E. Reeves, New York • I. M. Sheffield • Hal L. Smith • Howard T. Tellepsen, Houston • Robert Tharpe • William C. Wardlaw, Jr. • Robert H. White • George W. Woodruff • Charles R. Yates •

## THE EDITORIAL STAFF

Robert B. Wallace, Jr., editor • Thomas H. Hall, III, advertising manager • Mary Jane Reynolds, editorial assistant • Mary P. Bowie, class news editor • Marian Van Landingham, staff writer •

Published eight times a year—February, March, May, July, September, October, November and December—by the Georgia Tech National Alumni Association, Georgia Institute of Technology, 225 North Avenue, Atlanta, Georgia. Subscription price (35c per copy) included in the membership dues. Second class postage paid at Atlanta, Georgia.





Shown on these pages is the model of the Georgia Tech campus of 1985 viewed from the southeast. To see how and why the new campus will get this way, please turn the page for a special report.



# A BOLD FUTURE

these pages is the model of the Georgia Tech  
1985 viewed from the southeast. To see how and why  
ampus will get this way, please turn the page for a special report.



## A BOLD FUTURE

The rows of shabby bungalows that once were white will be flattened and on the land will rise a campus for tomorrow's student



ON FIFTH STREET squats a row of shabby, clap-board bungalows that used to be white. The screens on the porches are either tattered or bagging at the slats. The shrubbery is rank. Tacked on the forehead of each house is a small sign with black lettering:

Property of Georgia Institute of Technology  
No Trespassing

At both ends of the block are larger signs: billboards six feet long and four-and-one-half feet deep, gold and white with a pattern of gears drawn down the left side. These signs bear this message:

Georgia Institute of Technology  
Physics Building  
Another major step  
Towards a greater Georgia Tech

The wreckers will soon be out to tear down the houses, salvaging anything of value and the bulldozers will crawl about.

The red slope will be molded about until it suits the form of the new building and then from the muddy nest will sprout the concrete limbs, one on top of another. When the concrete is cloaked with bricks, glass, and the interior outfitted, students and professors will move in to explore the very frontiers of man's knowledge of the physical world.

During the next 20 years this transformation of a block will be repeated many times as Georgia Tech builds for a technological university second to none. The 1985 campus will be more than twice the size of the present one of 153 acres — it will probably approach 400 acres. And floor space will triple — from the present 2,538,000 square feet to 7,819,000.

This is not a dream. It is a well-thought-out plan that has been developed during the past year by the Chicago consulting firm of Perkins and Will working closely with Tech administrators, federal, state and city officials, and engineering consultants. It was recently published in a 90-page booklet titled *Comprehensive Campus Development Plan*.

The Plan anticipates a student body of 7,800 undergraduates and 2,000 graduate students by 1975; 9,500 undergraduates and 3,000 graduates by 1985. By comparison, the ratio in 1963 was 5,546 and 763.

Also anticipated are vastly expanded research efforts in both the academic and the Engineering Experiment Station.

Because the Northwest Freeway borders Tech on the east, North Avenue and Techwood Public Housing on the south, and Tenth Street and a fairly industrialized area on the north, the Plan recommends that the campus expand to the west across Hemphill Avenue into the residential area. As the Plan was being developed, Tech worked with federal and city authorities to have the area declared eligible for urban renewal. By June 1 the Atlanta Housing Authority should have federal approval to begin acquiring 66 acres across Hemphill valley and up to ridge-running Ponders Street. Tech has gone ahead and bought several parcels that it could not wait for. In the next few years Tech will apply for more land until eventually the campus stretches to Northside Drive.

There are still some houses being kept attractively in this area across Hemphill, but most are sagging; many are *shot-gun* — one-room wide, three- or four-rooms-deep — houses built cheaply before and around the turn of the century. In the worst areas, Negroes are the unfortunate dwellers among broken windows, trash, and weed-littered yards. On the crest of Ponders, before the street plunges into a valley to the north, sits an old farm house a little further from the street than its neighbors and with a few old hardwoods surrounding it — and down the slope behind it is a collection of concrete block, row huts painted dirty pink — what was once a pasture — just above a trash-tangled creek.

Tied to a bush in front of the farm house are plastic flowers.

At least a few of the most dilapidated houses in this area are beginning to be deserted as condemned signs are tacked to their front porches. The city is starting to enforce its housing codes. The neighborhood knows Tech is coming.

The Plan proposes uses for all this land. That tangled creek will be cleaned up by 1985 and two- and three-story, comparatively small dormitories, will cluster on the landscaped hillsides. To the north, where a city park is now, will be playing fields. The farmhouse with the plastic-blooming scrub will mark the outer perimeter of the academic area. A four-lane loop road running along Ponders, Sixth Street, Fifth Street, Techwood, Third and Cherry, will define the academic heart. Only wide sidewalks, that can be used for emergency access, will penetrate into this pedestrian haven. Students that are fleet of foot and physically fit will be able to cross the area in breaks between classes.

North of the academic area — from Sixth Street to the northern boundary of Tenth Street, will grow the Engineer-



ON FIFTH STREET squats a row of shabby, clap-board bungalows that used to be white. The screens on the porches are either tattered or bagging at the slats. The shrubbery is rank. Tacked on the forehead of each house is a small sign with black lettering:

Property of Georgia Institute of Technology  
No Trespassing

At both ends of the block are larger signs: billboards six feet long and four-and-one-half feet deep, gold and white with a pattern of gears drawn down the left side. These signs bear this message:

Georgia Institute of Technology  
Physics Building  
Another major step  
Towards a greater Georgia Tech

The wreckers will soon be out to tear down the houses, salvaging anything of value and the bulldozers will crawl about.

The red slope will be molded about until it suits the form of the new building and then from the muddy nest will sprout the concrete limbs, one on top of another. When the concrete is cloaked with bricks, glass, and the interior outfitted, students and professors will move in to explore the very frontiers of man's knowledge of the physical world.

During the next 20 years this transformation of a block will be repeated many times as Georgia Tech builds for a technological university second to none. The 1985 campus will be more than twice the size of the present one of 153 acres — it will probably approach 400 acres. And floor space will triple — from the present 2,538,000 square feet to 7,819,000.

This is not a dream. It is a well-thought-out plan that has been developed during the past year by the Chicago consulting firm of Perkins and Will working closely with Tech administrators, federal, state and city officials, and engineering consultants. It was recently published in a 90-page booklet titled *Comprehensive Campus Development Plan*.

The Plan anticipates a student body of 7,800 undergraduates and 2,000 graduate students by 1975; 9,500 undergraduates and 3,000 graduates by 1985. By comparison, the ratio in 1963 was 5,546 and 763.

Also anticipated are vastly expanded research efforts in both the academic and the Engineering Experiment Station.

Because the Northwest Freeway borders Tech on the east, North Avenue and Techwood Public Housing on the south, and Tenth Street and a fairly industrialized area on the north, the Plan recommends that the campus expand to the west across Hemphill Avenue into the residential area. As the Plan was being developed, Tech worked with federal and city authorities to have the area declared eligible for urban renewal. By June 1 the Atlanta Housing Authority should have federal approval to begin acquiring 60 acres across Hemphill valley and up to ridge-running Ponders Street. Tech has gone ahead and bought several parcels that it could not wait for. In the next few years Tech will apply for more land until eventually the campus stretches to Northside Drive.

There are still some houses being kept attractively in this area across Hemphill, but most are sagging; many are *shot-gun* — one-room wide, three- or four-rooms-deep — houses built cheaply before and around the turn of the century. In the worst areas, Negroes are the unfortunate dwellers among broken windows, trash, and weed-littered yards. On the crest of Ponders, before the street plunges into a valley to the north, sits an old farm house a little further from the street than its neighbors and with a few old hardwoods surrounding it — and down the slope behind it is a collection of concrete block, row huts painted dirty pink — what was once a pasture — just above a trash-tangled creek.

Tied to a bush in front of the farm house are plastic flowers.

At least a few of the most dilapidated houses in this area are beginning to be deserted as condemned signs are tacked to their front porches. The city is starting to enforce its housing codes. The neighborhood knows Tech is coming.

The Plan proposes uses for all this land. That tangled creek will be cleaned up by 1985 and two- and three-story, comparatively small dormitories, will cluster on the landscaped hillsides. To the north, where a city park is now, will be playing fields. The farmhouse with the plastic-blooming scrub will mark the outer perimeter of the academic area. A four-lane loop road running along Ponders, Sixth Street, Fifth Street, Techwood, Third and Cherry, will define the academic heart. Only wide sidewalks, that can be used for emergency access, will penetrate into this pedestrian haven. Students that are fleet of foot and physically fit will be able to cross the area in breaks between classes.

North of the academic area — from Sixth Street to the northern boundary of Tenth Street, will grow the Engineer-

ing Experiment Station. The Frank H. Neely Nuclear Research Center is already in this section and the Electronics Building is on the way up. Nearby is the Highway Research Building and just south of Sixth Street, the Radioisotopes and Bioengineering Building.

On the south side of the new campus, just west of the present *Hill*, will rise new administration buildings and a student center that will be placed in front of a *real* front door to the campus.

According to the Plan this gateway will open off a wide, smooth-flowing thoroughfare that might be named Tech Parkway, connecting with the present Hemphill at North Avenue and sweeping in a crescent to Northside Drive just south of Tenth Street, thus eliminating that part of Hemphill which would cut diagonally across the future campus.

With the aid of the Atlanta Traffic Engineering Department and the Georgia State Highway Department of Planning Division, a survey of drivers using Hemphill on a typical day was made. The survey showed that although about 30 percent of the traffic using the street was campus bound, it was mainly used for trips between downtown Atlanta and various parts of the northwestern metropolitan area.

"The Georgia Tech campus lies almost at the hub of the Metropolitan Atlanta highway network, astride the natural travel corridor between the central business district and the rapidly-developing northeast and northwest regions," the Report states.

It was concluded that Hemphill or another street as large or larger must be retained as a major traffic artery in this portion of the city:

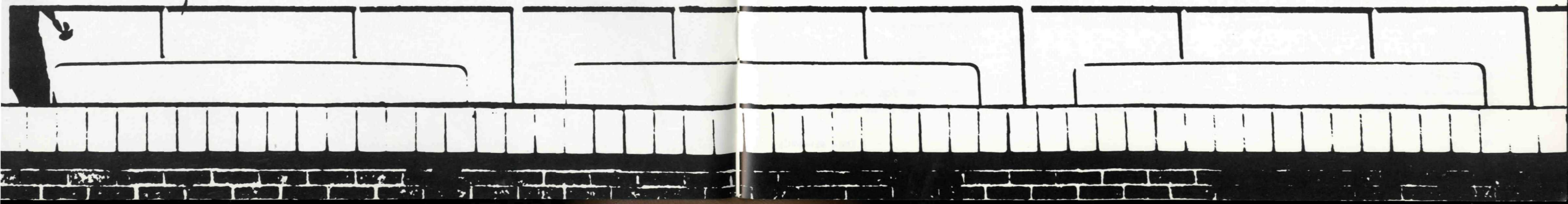
"It may be moved, though not far from its present location, but it may not be abandoned."

Although the Plan does not offer architectural details about future buildings, it makes a number of general suggestions. It recommends, for example, that buildings including classrooms not be over three stories above ground with one basement level. The reasoning is quite clear: far more students can move quickly up and down stairs than on elevators which would be necessary in taller buildings. (In addition, the stair-climbing may be considered a non-credit part of the Physical Training Program.)

"High-rise towers may be practical for some forms of research and particularly for administrative offices," the Report notes. This is one of the reasons for the choice of the new gateway on the next hill from the present one. Tall administration buildings would be very impressive atop the rise and would compete for attention with other tall

## BOLD FUTURE

rows of shabby bungalows that  
ce were white will be flattened  
d on the land will rise a campus  
tomorrow's student







President Harrison briefs over 175 important Atlantans during the April 9 unveiling of the new campus plan and the 1985 model.

### A BOLD FUTURE

buildings rising on Atlanta's ridges.

In order to have wide sweeps of green space, pedestrian plazas between major groups of buildings, playing fields and a few access roads, the Plan recommends that only about 25 percent of the campus land area be covered with structures. *And every building or building group constructed in the 1965-75 decade must allow space for 50 percent expansion.*

The Plan anticipates that by 1985, 78 acres will be needed for the academic area, 28 for the Engineering Experiment Station, three for administration, 40 for physical training and athletics, 80 for recreation and fields, 28 for single-student housing, 28 for married housing, 11 for a student center and related activities, nine for the Physical Plant Department, 40 for parking, and 47 for roads—a total of 392 acres.

Some parking areas would be provided along the loop road but the report states that "both topography and expected demand, plus economics of land values, strongly suggest parking structures in several locations. Two sites particularly lend themselves to such structures; one, adjoining Grant Field on the west can be developed in three or four levels when the Knowles Building and obsolete Chemistry Buildings are removed; another location suggested is between the Classroom Building and the new Student Center (to be just across the present Hemphill), where

there will be a heavy demand for parking, and a terrain situation which will allow a two- or three-level structure essentially below adjoining grades."

The traffic engineering for the Plan was conducted by Wilbur Smith and Associates, Columbia, S. C. Keck Engineering Associates, Inc., Atlanta, which did the 1962 *Formula for Growth* study of the campus, conducted comprehensive utilities investigations for the expected needs of the campus in 1985. Maps showing the electrical system, sewer and water system, and a gas, heating and cooling system are included in the published report.

Specific locations are recommended for buildings to be constructed within the next five years. These include the Student Center and Chemistry Building to be across Hemphill; an addition to the Library, to be a tower adjoining the present structure; Computer Center, to continue to grow near the Library; and an Engineering Experiment Station Building, in the vicinity of the Nuclear Reactor. Appropriations of more than \$20,000,000 from the Board of Regents of the University System of Georgia and substantial federal funds, assure an enormous amount of building in the immediate future and was the primary reason Tech asked Perkins and Will to draw up the comprehensive plan.

Unfortunately, the cramped site for the new Space Sciences and Technology Center had to be chosen before

Tech knew it would be able to acquire the urban renewal land. Paradoxically, space research will thus be launched in a very crowded area.

The Plan suggests tearing down a number of obsolete buildings by 1970 or soon afterwards. Some are just temporary, post-World War II structures; others were fine buildings when built in the 1890's and in the 1900's. Today they are uncomfortable and hard to keep up and would require total renovation to be worth-while. These buildings are suggested for removal: Knowles, Emerson, Lyman, Chemical Engineering plus Annex, the ROTC Group, Old Shop Building, Bradley, Carnegie, Naval Armory, Engineering Experiment Station temporary structures, Research Area No. 2.

And when this is completed, there the Administration Building with its 1888 outside and 1963 inside, will stand, virtually alone. It was the first on the campus and it will stay the longest.

In a very real sense, the campus will not only be vastly expanded, but the old campus will be drastically changed to bring it into proper orientation with the new, and frankly—to give it some order. Campus planning, as a long-range guide for the direction of new development, apparently did not exist from Tech's beginnings in 1888 until 1944. Since 1944 there have been several studies but proper growth and real planning was, up until this time, handicapped by the inability to buy large tracts. The School had to buy a few lots at a time and then try to shoe-horn

in a building

The rapid  
tion of mar  
architectural  
pus. The ne  
trical Engin  
gineering Bu  
look less li  
charm will  
Alumnus  
will be typic  
should visit  
tronics Build  
Experiment  
Workmen s  
ment of the  
ground.

The resid  
once the ho  
time being a  
its tiny fron  
the earth h  
plateau for c  
sits. Awaitin  
and in nook  
and enginee  
about how  
building the

### More good news on a special day

THE DAY the Perkins and Will Plan was officially presented to the public, Tech received notice that it had been awarded a \$1 million grant from the U.S. Department of Health, Education and Welfare to add to \$2 million already allocated by the state Board of Regents for construction of a major addition to the library.

Construction will start on the seven-story tower to be on the Third Street corner above the present structure this summer and should be completed the spring of 1967.

When the present Price Gilbert Memorial Building was planned in the early fifties it was believed by many people that there would never be need for more space, Mrs. J. H. Crosland, Director of the Library says. This was based, she says, on the old concept of an engineering education which claimed that all a student needed was "a handbook, sliderule, and his professional journal."

But this has drastically changed and all the engineering and scientific disciplines are very closely tied together, and,

of course, there has been the so-called "explosion of knowledge."

The Tech library, three-fourth which is devoted to science and engineering, now contains over 500,000. "We'll have a million items within next 10 years," Mrs. Crosland says.

The seven-story addition will contain 111,487 square feet, 386 carrels, cubicles with desks and shelves (1 in the library shelf areas) for graduate students, 1,800 lockers where students can leave books, 20 typing areas they can take notes, and four study rooms to be used primarily for graduate classes.

The shelves will be filled with technical reports, patents, government documents and science and engineering for graduate level work. There is space for data processing equipment which will probably feed into the Electronic Computer Center next to the library—an ideal arrangement for the expanded use of computers for information retrieval.

The importance of the new addition for graduate education can not be over-emphasized. When the present library was conceived there were eight graduate students on campus.





President Harrison briefs over 175 important Atlantans during the April 9 unveiling of the new campus plan and the 1985 model.

## OLD FUTURE

Buildings rising on Atlanta's ridges.

In order to have wide sweeps of green space, pedestrian paths as between major groups of buildings, playing fields and a few access roads, the Plan recommends that only 25 percent of the campus land area be covered with structures. *And every building or building group constructed in the 1965-75 decade must allow space for 50 percent open space.*

The Plan anticipates that by 1985, 78 acres will be needed for the academic area, 28 for the Engineering Experiment Station, three for administration, 40 for physical training and athletics, 80 for recreation and fields, 28 for single-student housing, 28 for married housing, 11 for student center and related activities, nine for the Physical Education Department, 40 for parking, and 47 for roads—a total of 392 acres.

Some parking areas would be provided along the loop, but the report states that "both topography and existing demand, plus economics of land values, strongly suggest parking structures in several locations. Two sites particularly lend themselves to such structures; one, adjoining Grant Field on the west can be developed in three or four levels when the Knowles Building and obsolete Chemistry Buildings are removed; another location suggested is between the Classroom Building and the new Student Center (to be just across the present Hemphill), where

there will be a heavy demand for parking, and a terrain situation which will allow a two- or three-level structure essentially below adjoining grades."

The traffic engineering for the Plan was conducted by Wilbur Smith and Associates, Columbia, S. C. Keck Engineering Associates, Inc., Atlanta, which did the 1962 *Formula for Growth* study of the campus, conducted comprehensive utilities investigations for the expected needs of the campus in 1985. Maps showing the electrical system, sewer and water system, and a gas, heating and cooling system are included in the published report.

Specific locations are recommended for buildings to be constructed within the next five years. These include the Student Center and Chemistry Building to be across Hemphill; an addition to the Library, to be a tower adjoining the present structure; Computer Center, to continue to grow near the Library; and an Engineering Experiment Station Building, in the vicinity of the Nuclear Reactor. Appropriations of more than \$20,000,000 from the Board of Regents of the University System of Georgia and substantial federal funds, assure an enormous amount of building in the immediate future and was the primary reason Tech asked Perkins and Will to draw up the comprehensive plan.

Unfortunately, the cramped site for the new Space Sciences and Technology Center had to be chosen before

Tech knew it would be able to acquire the urban renewal land. Paradoxically, space research will thus be launched in a very crowded area.

The Plan suggests tearing down a number of obsolete buildings by 1970 or soon afterwards. Some are just temporary, post-World War II structures; others were fine buildings when built in the 1890's and in the 1900's. Today they are uncomfortable and hard to keep up and would require total renovation to be worth-while. These buildings are suggested for removal: Knowles, Emerson, Lyman, Chemical Engineering plus Annex, the ROTC Group, Old Shop Building, Bradley, Carnegie, Naval Armory, Engineering Experiment Station temporary structures, Research Area No. 2.

And when this is completed, there the Administration Building with its 1888 outside and 1963 inside, will stand, virtually alone. It was the first on the campus and it will stay the longest.

In a very real sense, the campus will not only be vastly expanded, but the old campus will be drastically changed to bring it into proper orientation with the new, and frankly—to give it some order. Campus planning, as a long-range guide for the direction of new development, apparently did not exist from Tech's beginnings in 1888 until 1944. Since 1944 there have been several studies but proper growth and real planning was, up until this time, handicapped by the inability to buy large tracts. The School had to buy a few lots at a time and then try to shoe-horn

in a building, whether the location was ideal or not.

The rapid construction of new buildings and the demolition of many old ones will, of course, eventually lend, architecturally, a kind of modern homogeneity to the campus. The new look will be handsome if the Van Leer Electrical Engineering and Chemical Engineering-Ceramic Engineering Buildings are an indication. The Hill will probably look less like an 1890 factory complex, but, a certain charm will be gone, forever.

*Alumnus* readers who would like to observe a scene that will be typical somewhere on campus for the next 20 years, should visit the Sixth and State Street site of the Electronics Building rising to meet the needs of the Engineering Experiment Station. The concrete bones are already up. Workmen scurry over it while the air-conditioning equipment of the Nuclear Research Center hums in the background.

The resident architect has moved into a little brick house, once the home of a professor. It has been spared for the time being and perches on the corner lot of the block with its tiny front yard and a tree. But on the side of the house the earth has been lowered 20 or 25 feet to make a flat plateau for one level of the Electronics Building. The house sits. Awaiting its turn. And in other little houses, pre-fabs, and in nooks and crannies all over the campus, the scientists and engineers of the Electronics Division are dreaming about how fine it will be to work in that modern new building they helped plan just to suit their needs.

## More good news on a special day

THE DAY the Perkins and Will Plan was officially presented to the public, Tech received notice that it had been awarded a \$1 million grant from the U.S. Department of Health, Education and Welfare to add to \$2 million already allocated by the state Board of Regents for construction of a major addition to the library.

Construction will start on the seven-story tower to be on the Third Street corner above the present structure this summer and should be completed the spring of 1967.

When the present Price Gilbert Memorial Building was planned in the early fifties it was believed by many people that there would never be need for more space, Mrs. J. H. Crosland, Director of the Library says. This was based, she says, on the old concept of an engineering education which claimed that all a student needed was "a handbook, sliderule, and his professional journal."

But this has drastically changed and all the engineering and scientific disciplines are very closely tied together, and,

of course, there has been the so-called "explosion of knowledge."

The Tech library, three-fourths of which is devoted to science and engineering, now contains over 500,000 items. "We'll have a million items within the next 10 years," Mrs. Crosland says.

The seven-story addition will contain 111,487 square feet, 386 carrels (small cubicles with desks and shelves located in the library shelf areas) for graduate students, 1,800 lockers where students can leave books, 20 typing areas where they can take notes, and four seminar rooms to be used primarily for graduate classes.

The shelves will be filled with technical reports, patents, government documents and science and engineering books for graduate level work. There will be space for data processing equipment which will probably feed into the Rich Electronic Computer Center next door to the library—an ideal arrangement for the expanded use of computers in information retrieval.

The importance of the new library addition for graduate education at Tech can not be over-emphasized. When the present library was conceived there were eight graduate students on campus,

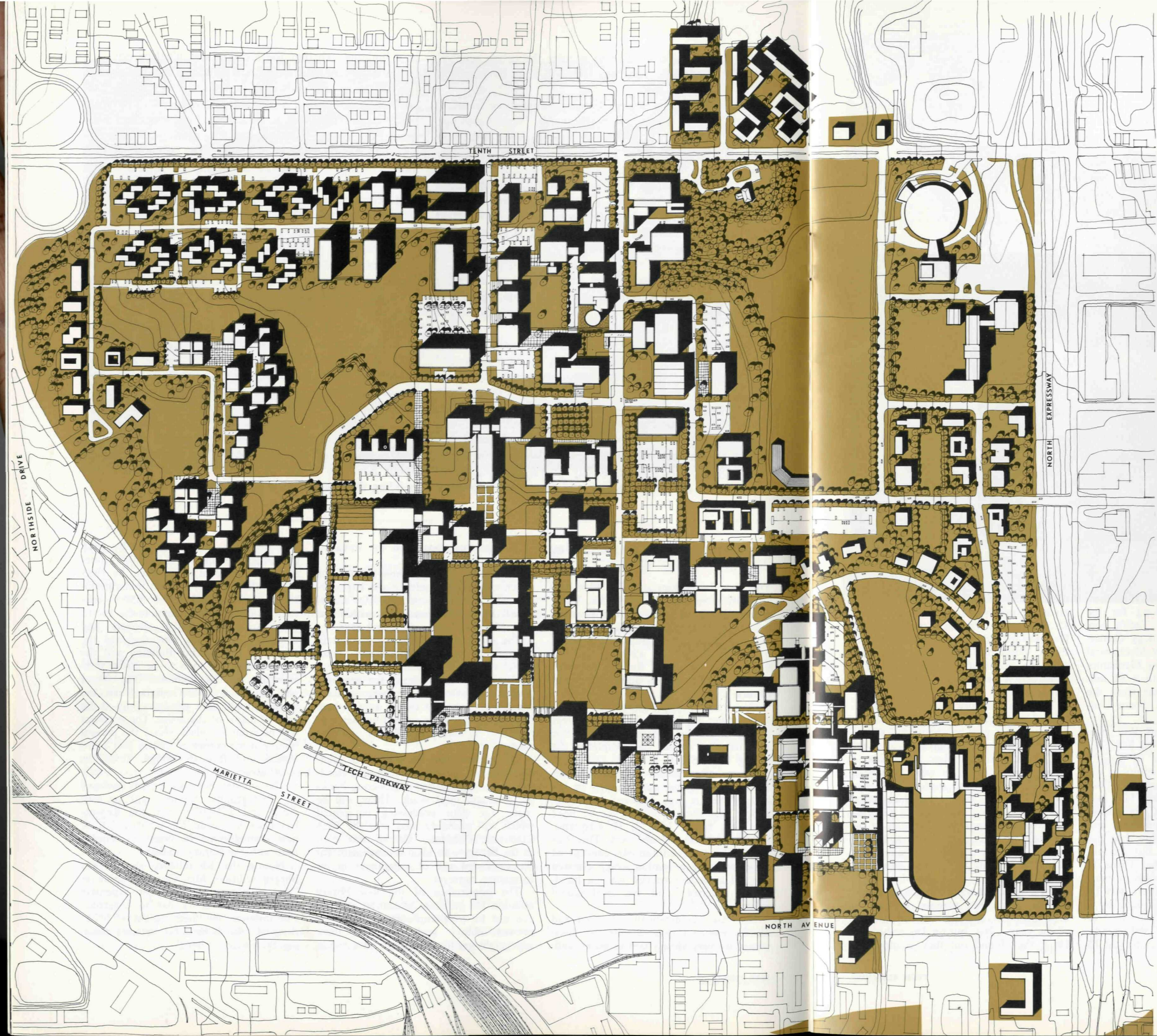
now there are almost 900 and by 1975 it is anticipated there will be 2,000—one-fifth of the student body. Then, by 1985 there will be 3,000 with an undergraduate student population of 9,500—one-fourth of the total student body.

Edward Moulthrop of Robert and Company Associates who designed the Electrical Engineering Building and the Physics Building soon to be under construction, is the architect. The tower will be faced with Georgia Tech red brick and will have windows only at the ends of a few of the aisles. The entrance will be from the plaza above the present library at the corner of Cherry and Third Streets and through bridges from the "old" structure.

The wooden houses currently endured by Photographic Services will be torn down and \$250,000 from the Regents has been set aside for construction of new photographic facilities in conjunction with the library addition.

Noting the \$3 million cost of the library addition, Mrs. Crosland explains, "that a library is the most expensive building a university has to construct. For instance, the sheer weight of books demands that it be a far stronger building than many others."





## A BOLD

The campus  
if all goes  
will consti

The Georgia  
12,500 studen  
this, it will exp

The physical  
will be bi-pola  
that of the Aca  
Station side by  
campus. Where  
space will be  
This core will  
housing, recrea  
Avenue will b  
terior campus  
the Academic  
trance to the c  
and the Admin

0 250

### Key Plan



TECH ALUMNUS





## A BOLD FUTURE

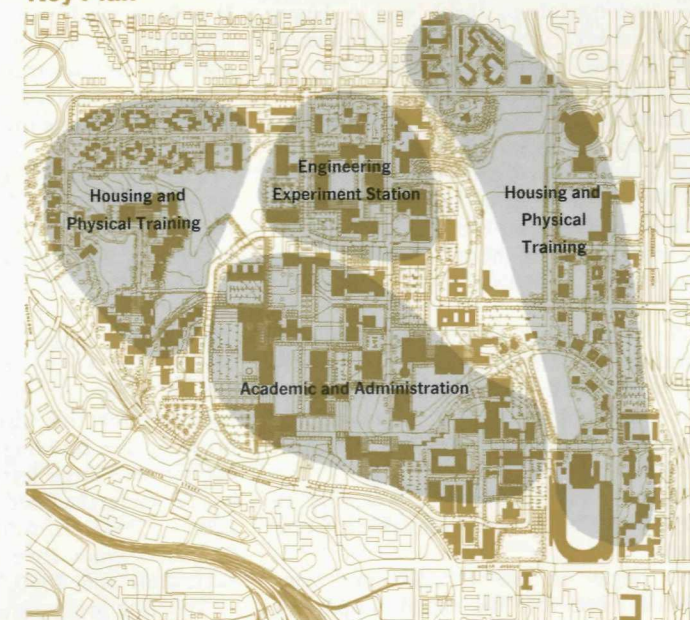
The campus heads westward and in 1985  
if all goes well the area in color  
will constitute the new Tech

The Georgia Tech Campus of 1985 will accommodate 12,500 students on just under 400 acres of land. To do this, it will expand westward all the way to Northside Drive.

The physical organization of the campus, briefly stated, will be bi-polar in nature, with its two primary functions that of the Academic Area and the Engineering Experiment Station side by side forming the heart or the core of the campus. Where the two areas meet, surge or uncommitted space will be available for additional expansion of either. This core will be surrounded on the east and west by housing, recreation and physical training space. Hemphill Avenue will be replaced by "Tech Parkway" and an interior campus loop road will virtually eliminate traffic from the Academic heart of the campus. The main visual entrance to the campus will be between the Student Center and the Administration Center from "Tech Parkway."



### Key Plan





Three important alumni are serious about the ceremony. Left to right, they are John Staton, president of the Georgia Tech Foundation; George Woodruff, a member of the Foundation Board; and Jesse Draper, a member of the present Board of Regents.



## LIFTOFF FOR A NEW COMPLEX ON APRIL FOOL'S MORNING

**L**IFTOFF came a week before the announcement of the Comprehensive Plan and defied superstition by being staged before 12 noon. The weather was uncooperative: there was a heavy cloud cover, precipitation threatened, and it was so cold reporters on the scene had difficulty writing notes.

Immediately before the launching there was a great milling around of NASA officials, dignitaries representing the Board of Regents of the University System of Georgia, the City of Atlanta, as well as a number of outstanding businessmen, alumni and interested politicians.

At 11:02 a.m., 14 mounted the platform set on an emerald green, grassy pad and seated themselves in a row of non-contour chairs. The voice at the loudspeaker was that of Tech President Edwin Harrison:

"Ladies and Gentlemen, welcome to our April Fool's Groundbreaking Ceremony."

So began in jest a ceremony symbolically one of the most important

Tech will experience in many months. This was the groundbreaking for the first structure in Georgia Tech's new Space Sciences and Technology Center. It will be used primarily by Mechanical Engineering and Engineering Mechanics and will be constructed with a \$1 million grant received last year from the National Aeronautics and Space Administration.

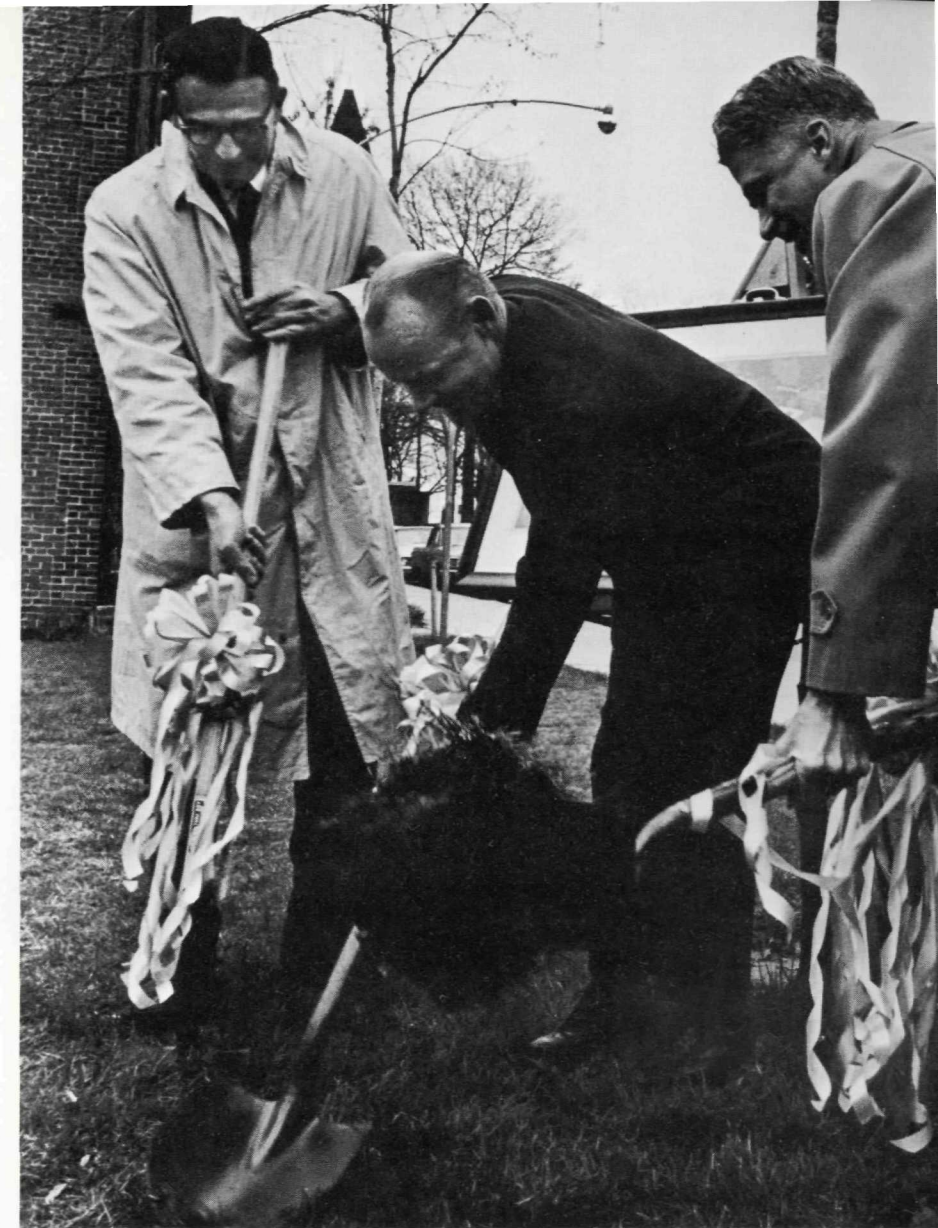
The day the Perkins and Will plan was announced, Tech received \$492,717 from the U.S. Department of Health, Education and Welfare to complete the funding for Building Number Two, which will cost approximately \$1.7 million. It will house research laboratories chiefly for Aerospace Engineering and related areas. No construction date has been set for this structure but groundbreaking for Building Number Three, to contain five large lecture rooms primarily for undergraduate education, will be July 1, 1965. It will be financed by a \$279,000 grant from the U.S. Office of Education and \$560,000 of state funds.

This first groundbreaking came just 15

months after the conception of the center in the minds of four Tech professors: Dr. Milton Raville, Dr. Arnold Ducoffe, Dr. Howard Edwards, and Dr. Kenneth Picha. These professors first met to discuss the possibility of applying for a construction grant from NASA in November, 1963.

Tech was already involved in space-related research represented in dollars and cents that year by about \$500,000 in grant support and contracts, and the professors thought it time to consider a major expansion. They were convinced the Tech faculty and student body had the ability and the research capacity, and they believed the State of Georgia would benefit from the education of individuals in space-age science and technology. They were also certain there would be benefits to Georgia industry.

Working closely with Architect John Cherry, who had no assurance he would ever be paid, they planned to send in their proposal sometime after the first of the year, 1964, but on December 20, 1963, they found out they would have



to have the proposal in before January 1 for it to be acted on that year.

This was the time Atlanta had a pre-white Christmas. But while most citizens vacationed, Dr. Picha and Dean of Faculties, Dr. Paul Weber, were on campus writing the proposal. Two loyal secretaries and a graduate student typed. They finished on Christmas Eve and sent their Christmas wish for Tech off — and in April, 1965, they heard they had received the NASA grant.

Now, a year later, after working closely with Donald C. Holmes, chief, Research and Facilities Division, Office of Grants and Research Contracts, NASA, it was groundbreaking time. In his remarks at the ceremonies, Dr. John

Holloway, Holme's superior, said the project represents: "an impressive exercise in mutual confidence—confidence of Congress in establishing the university facilities program, confidence of NASA in Tech's abilities in teaching and research, and confidence of the scholars in the nation's space efforts." In conclusion, he said he hoped Tech would "reach for the brass ring of leadership in space studies."

As he took the lectern again, President Harrison immediately answered: "Dr. Holloway, Georgia Tech will reach for the brass ring."

The main address was delivered by Eugene Patterson, editor of the *Atlanta Constitution* who has been a leading



Three important alumni are serious about the ceremony. Left to right, they are John Staton, president of the Georgia Tech Foundation; George Woodruff, a member of the Foundation Board; and Jesse Draper, a member of the present Board of Regents.



# LIFTOFF FOR A NEW COMPLEX ON APRIL FOOL'S MORNING

LIFTOFF came a week before the announcement of the Comprehensive Plan and defied superstition by being staged before 12 noon. The weather was uncooperative: there was a heavy cloud cover, precipitation threatened, and it was so cold reporters on the scene had difficulty writing notes.

Immediately before the launching there was a great milling around of NASA officials, dignitaries representing the Board of Regents of the University System of Georgia, the City of Atlanta, as well as a number of outstanding businessmen, alumni and interested politicians.

At 11:02 a.m., 14 mounted the platform set on an emerald green, grassy pad and seated themselves in a row of non-contour chairs. The voice at the loudspeaker was that of Tech President Edwin Harrison:

"Ladies and Gentlemen, welcome to our April Fool's Groundbreaking Ceremony."

So began in jest a ceremony symbolically one of the most important

Tech will experience in many months. This was the groundbreaking for the first structure in Georgia Tech's new Space Sciences and Technology Center. It will be used primarily by Mechanical Engineering and Engineering Mechanics and will be constructed with a \$1 million grant received last year from the National Aeronautics and Space Administration.

The day the Perkins and Will plan was announced, Tech received \$492,717 from the U.S. Department of Health, Education and Welfare to complete the funding for Building Number Two, which will cost approximately \$1.7 million. It will house research laboratories chiefly for Aerospace Engineering and related areas. No construction date has been set for this structure but groundbreaking for Building Number Three, to contain five large lecture rooms primarily for undergraduate education, will be July 1, 1965. It will be financed by a \$279,000 grant from the U.S. Office of Education and \$560,000 of state funds.

This first groundbreaking came just 15

months after the conception of the center in the minds of four Tech professors: Dr. Milton Raville, Dr. Arnold Ducoffe, Dr. Howard Edwards, and Dr. Kenneth Picha. These professors first met to discuss the possibility of applying for a construction grant from NASA in November, 1963.

Tech was already involved in space-related research represented in dollars and cents that year by about \$500,000 in grant support and contracts, and the professors thought it time to consider a major expansion. They were convinced the Tech faculty and student body had the ability and the research capacity, and they believed the State of Georgia would benefit from the education of individuals in space-age science and technology. They were also certain there would be benefits to Georgia industry.

Working closely with Architect John Cherry, who had no assurance he would ever be paid, they planned to send in their proposal sometime after the first of the year, 1964, but on December 20, 1963, they found out they would have



The principals in the ceremony break the ground. Left to right, they are Regents Chairman James Dunlap; *Constitution* Editor Patterson; and NASA's Holloway.

to have the proposal in before January 1 for it to be acted on that year.

This was the time Atlanta had a pre-white Christmas. But while most citizens vacationed, Dr. Picha and Dean of Faculties, Dr. Paul Weber, were on campus writing the proposal. Two loyal secretaries and a graduate student typed. They finished on Christmas Eve and sent their Christmas wish for Tech off — and in April, 1965, they heard they had received the NASA grant.

Now, a year later, after working closely with Donald C. Holmes, chief, Research and Facilities Division, Office of Grants and Research Contracts, NASA, it was groundbreaking time. In his remarks at the ceremonies, Dr. John

Holloway, Holme's superior, said the project represents: "an impressive exercise in mutual confidence—confidence of Congress in establishing the university facilities program, confidence of NASA in Tech's abilities in teaching and research, and confidence of the scholars in the nation's space efforts." In conclusion, he said he hoped Tech would "reach for the brass ring of leadership in space studies."

As he took the lectern again, President Harrison immediately answered: "Dr. Holloway, Georgia Tech will reach for the brass ring."

The main address was delivered by Eugene Patterson, editor of the *Atlanta Constitution* who has been a leading

advocate of the State's entry into the space programs. He traced the rapid growth of the nation's space efforts, described some of the research already being conducted at Georgia Tech and noted that close to \$1 million will be spent on space-related work at the Institute this year. He looked forward to an expanded role for Tech and the State of Georgia in the next few years.

The groundbreaking, he said, "is not a dream come true, but the beginning of a dream. A dream of education . . . to close the gap between this region and other regions . . . to lead us up out of a cotton patch economy."

"It will turn our eyes outward to the exploration of a universe."





Waving from the lead car, Astronaut Young rides the streets of home with his wife and the Vice President, and (right) he talks to the crowd that welcomed him home.

## THE HOMECOMING OF A HERO

A big day in Orlando reported by Bill Sumits and the editor

ORLANDO, FLORIDA—On April 24, astronaut John Watts Young came home a hero to this bustling central Florida city. The reluctant dragon of the U.S. space team who became a television hit after his first post-Gemini press conference ("Zero G's will make an extrovert out of anyone.") was the same shy, confident man who left Orlando in 1948 to become a highest honor graduate in Aeronautical Engineering at Georgia Tech and then a Navy test pilot.

"John doesn't talk much," an old friend of his once said, "but when he does, folks just naturally listen." On this John Young Day in Orlando, he ran true to form—he left most of the talking to Vice President Hubert Humphrey and the other politicians who came to the city to help honor him. He did make a speech—from notes that he carried wadded up in his pocket. It lasted exactly three-and-a-half minutes and would have received an A from the toughest English professor on the Tech campus. If anyone was surprised at Young's ability to use the English lang-

uage it couldn't have been the Tech English Department—he made four A's and three B's in that area while he was a student at Tech.

The talk was simple and honest, and the crowd of over 10,000 that turned out to salute Orlando's most famous son loved it. He called the celebration, "The nicest thing that has happened to me since the flight of the *Molly Brown*. It's wonderful just to be home in Orlando. But I think that as I look at all of you people—my folks, my friends, the people whom I have known in this city over the years—that the shoe should be on the other foot. I should be having a day of appreciation for all of you. It is you who have made it possible for me to get into a job that I have enjoyed so much. And I truly appreciate what you have done for me."

John Young, Lt. Commander U.S. Navy, doesn't smile much either. His habitual expression is that of Gary Cooper walking down the street of a Western cowtown for a *High Noon* showdown

with a gunman. But from time to time he breaks into a grin that lights up everything around him. That is, if he isn't engaged in another of his traits—putting on a photographer or television director with that quick, now-you-see-it-now-you-don't smile. He broke into one of his honest grins when Mayor Robert Carr presented him with the first *John Young Award*, to be given in the future to outstanding natives of Orlando who bring exceptional credit to their city.

Young, his wife, Barbara, and their two children arrived in Orlando on the night of April 23, exactly one month after his three-orbit flight. The next morning he arrived at the parade site only to find that a faulty convertible top on the car in which he, his wife and Vice President Humphrey were to ride had caused a delay. After a three-minute hold for equipment repairs, the parade got under way at 11:03. It was the only thing that wasn't on schedule during the day. At 11:28, the Youngs walked up on the platform overlooking Lake Eola in the heart





# HOMECOMING OF A HERO

Orlando reported by Bill Sumits and the editor

24, astro-  
home a  
Florida city.  
U.S. space  
hit after  
conference  
out of  
confident  
become  
nautical  
then a

d friend  
es, folks  
Young  
form—  
e Presi-  
e other  
to help  
peech—  
d up in  
e-and-a-  
eived an  
essor on  
urprised  
ish lang-

uage it couldn't have been the Tech English Department—he made four A's and three B's in that area while he was a student at Tech.

The talk was simple and honest, and the crowd of over 10,000 that turned out to salute Orlando's most famous son loved it. He called the celebration, "The nicest thing that has happened to me since the flight of the *Molly Brown*. It's wonderful just to be home in Orlando. But I think that as I look at all of you people—my folks, my friends, the people whom I have known in this city over the years—that the shoe should be on the other foot. I should be having a day of appreciation for all of you. It is you who have made it possible for me to get into a job that I have enjoyed so much. And I truly appreciate what you have done for me."

John Young, Lt. Commander U.S. Navy, doesn't smile much either. His habitual expression is that of Gary Cooper walking down the street of a Western cowtown for a *High Noon* showdown

with a gunman. But from time to time he breaks into a grin that lights up everything around him. That is, if he isn't engaged in another of his traits—putting on a photographer or television director with that quick, now-you-see-it-now-you-don't smile. He broke into one of his honest grins when Mayor Robert Carr presented him with the first *John Young Award*, to be given in the future to outstanding natives of Orlando who bring exceptional credit to their city.

Young, his wife, Barbara, and their two children arrived in Orlando on the night of April 23, exactly one month after his three-orbit flight. The next morning he arrived at the parade site only to find that a faulty convertible top on the car in which he, his wife and Vice President Humphrey were to ride had caused a delay. After a three-minute hold for equipment repairs, the parade got under way at 11:03. It was the only thing that wasn't on schedule during the day. At 11:28, the Youngs walked up on the platform overlooking Lake Eola in the heart

TECH ALUMNUS



MAY 1965

Waving from the lead car, Astronaut Young rides the streets of home with his wife and the Vice President, and (right) he talks to the crowd that welcomed him home.



A small, freckle-faced girl can always get through a police cordon to get close to her city's top hero, who smiles (left) along with his wife at the Vice President's wit.



17





Orlando Tech Club President Frank McNulty presents the scroll from the Club and the Association to Young, who sneaked a look at his portrait.

## HOMEcoming - continued



of the city. Two minutes later, 12 Navy jets roared low across the reviewing stand and the program began.

Top Florida political figures including Governor Haydon Burns, ex-Governor Farris Bryant, Sixth District Congressman Ed Gurney, and others sat on the front row with the Youngs. The platform also held twenty-two teachers, Sunday school teachers and close friends of John Young's—sort of a silent **THIS IS YOUR LIFE** in the sunshine.

In introducing Vice President Humphrey who preceded Young as a speaker, Senator George Smathers referred to the astronaut as President John Young, because "he could be elected president to-day anywhere in this country."

Vice President Humphrey heaped praise on Young as well as the nation's space program. "Our great space program is the greatest boon to education that this nation has ever known," he said. "If we have learned nothing else out of the space program we have found out that we can only get things done in the manner of excellence when we do them as one United States of America. No South, no North, no East, no West. Just one country working together.

"I am sure," he added, "that John Young would want me to tell you that

his flight was for all of America and not for his own self. It was an example of the free enterprise system working with government to get a job done in the excellent manner that it must be done if the John Youngs and Gus Grissoms are to come back from these great scientific adventures."

Following the award presentation and Young's short talk, the public ceremony was concluded with a demonstration by an Air Force air rescue team who dropped from a helicopter into the lake to place the float collar on a replica of the *Molly Brown*. The rescue unit that picked up Young and Grissom from the water and saved the capsule is based in Orlando. Its commander, Col. Allison Brooks and Tech Sergeant Robert Johnson, the man who first reached the two astronauts on March 23, were on the platform for the ceremony.

The day's activities continued on the other side of the lake at the Cherry Plaza Hotel where the Youngs were guests of honor at a luncheon sponsored by the Orlando Chamber of Commerce. Again the Vice President was the main speaker. Young was presented with a plaque from the State of Florida by Governor Burns. To this Young replied with a simple "Thank you, very much, Governor." Then he was given an honorary membership card in the Orlando Chamber of Commerce by C. H. Stanton. To this, Young quipped, "We're not allowed to carry anything extra on a flight."

His wife was then presented with an oil painting of Young by artist Bill Orr, who has painted all of the astronauts during the past three years. Barbara Young was obviously pleased with the painting and after the ceremony was heard to say, "He caught that funny way John holds his mouth. I didn't think anyone could do it."

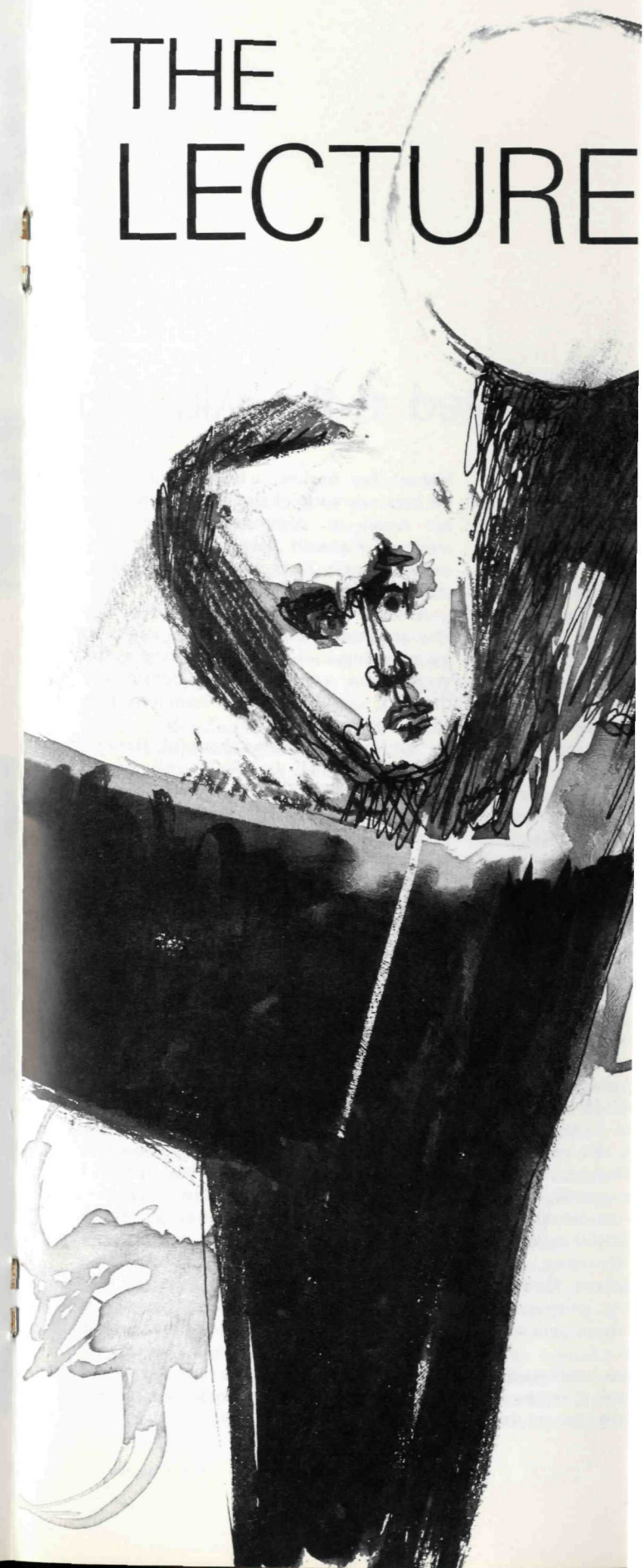
The final presentation on the program was a Tech production. Orlando Alumni Club Frank McNulty handed Young a scroll from the Georgia Tech National Alumni Association and the Orlando Club. In making the presentation, McNulty told Young that all Tech men were proud of his achievements and the superior way he has represented Tech to the nation and the world. The scroll was signed by McNulty and Association President Dan McKeever, who also is a graduate of Orlando High School.

Young's final public statement was in response to this award: "I like Tech men because they don't mind working seven days a week. In fact, I feel guilty about taking today off."

You can't beat that for a close to a perfect homecoming.

TECH ALUMNUS

# THE LECTURE







Orlando Tech Club President Frank McNulty presents the scroll from the Club and the Association to Young, who sneaked a look at his portrait.

## HOMEcoming - continued



of the city. Two minutes later, 12 Navy jets roared low across the reviewing stand and the program began.

Top Florida political figures including Governor Haydon Burns, ex-Governor Farris Bryant, Sixth District Congressman Ed Gurney, and others sat on the front row with the Youngs. The platform also held twenty-two teachers, Sunday school teachers and close friends of John Young's—sort of a silent THIS IS YOUR LIFE in the sunshine.

In introducing Vice President Humphrey who preceded Young as a speaker, Senator George Smathers referred to the astronaut as President John Young, because "he could be elected president today anywhere in this country."

Vice President Humphrey heaped praise on Young as well as the nation's space program. "Our great space program is the greatest boon to education that this nation has ever known," he said. "If we have learned nothing else out of the space program we have found out that we can only get things done in the manner of excellence when we do them as one United States of America. No South, no North, no East, no West. Just one country working together."

"I am sure," he added, "that John Young would want me to tell you that

his flight was for all of America and not for his own self. It was an example of the free enterprise system working with government to get a job done in the excellent manner that it must be done if the John Youngs and Gus Grissoms are to come back from these great scientific adventures."

Following the award presentation and Young's short talk, the public ceremony was concluded with a demonstration by an Air Force air rescue team who dropped from a helicopter into the lake to place the float collar on a replica of the *Molly Brown*. The rescue unit that picked up Young and Grissom from the water and saved the capsule is based in Orlando. Its commander, Col. Allison Brooks and Tech Sergeant Robert Johnson, the man who first reached the two astronauts on March 23, were on the platform for the ceremony.

The day's activities continued on the other side of the lake at the Cherry Plaza Hotel where the Youngs were guests of honor at a luncheon sponsored by the Orlando Chamber of Commerce. Again the Vice President was the main speaker. Young was presented with a plaque from the State of Florida by Governor Burns. To this Young replied with a simple "Thank you, very much, Governor." Then he was given an honorary membership card in the Orlando Chamber of Commerce by C. H. Stanton. To this, Young quipped, "We're not allowed to carry anything extra on a flight."

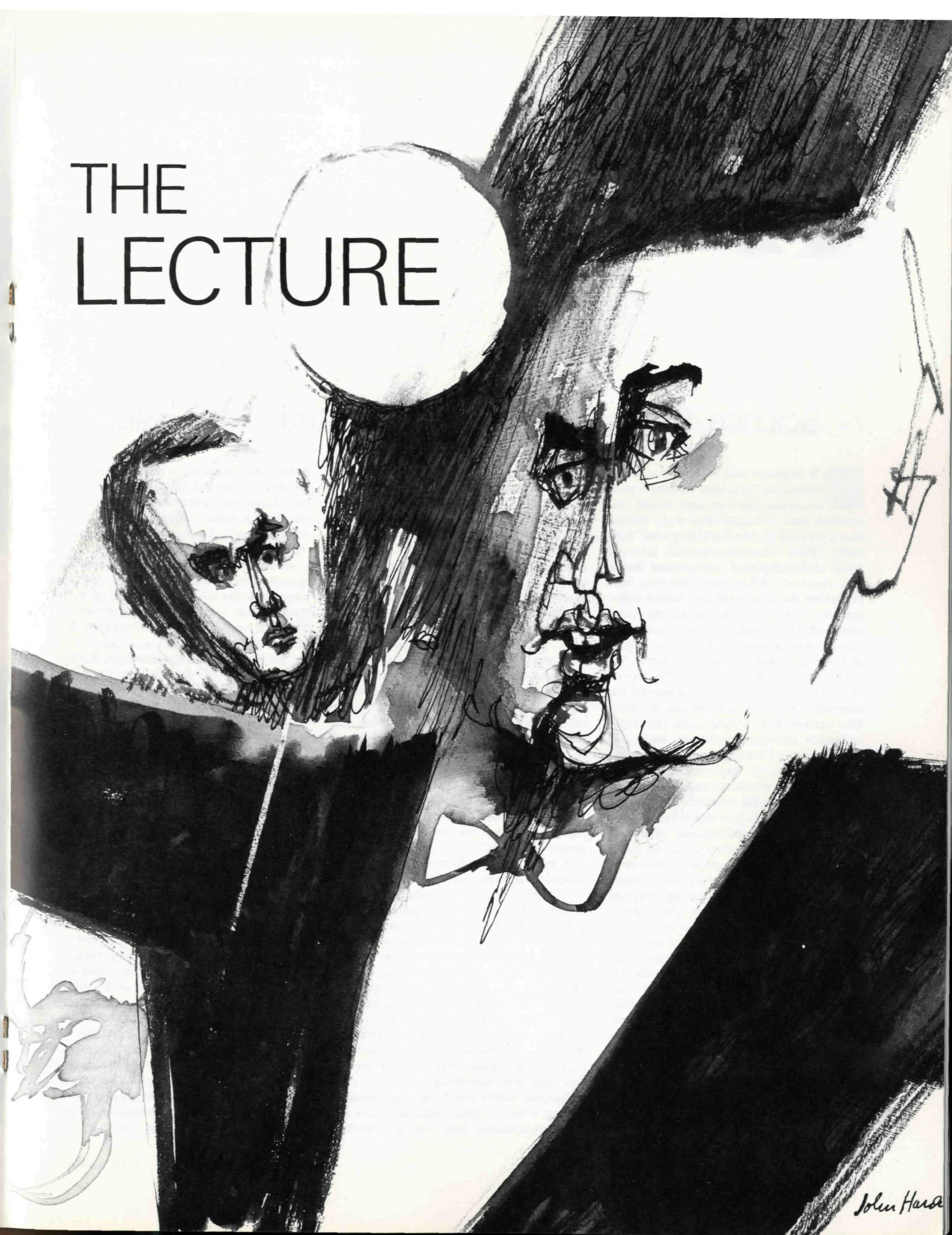
His wife was then presented with an oil painting of Young by artist Bill Orr, who has painted all of the astronauts during the past three years. Barbara Young was obviously pleased with the painting and after the ceremony was heard to say, "He caught that funny way John holds his mouth. I didn't think anyone could do it."

The final presentation on the program was a Tech production. Orlando Alumni Club Frank McNulty handed Young a scroll from the Georgia Tech National Alumni Association and the Orlando Club. In making the presentation, McNulty told Young that all Tech men were proud of his achievements and the superior way he has represented Tech to the nation and the world. The scroll was signed by McNulty and Association President Dan McKeever, who also is a graduate of Orlando High School.

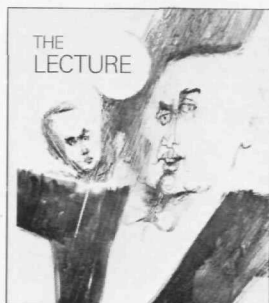
Young's final public statement was in response to this award: "I like Tech men because they don't mind working seven days a week. In fact, I feel guilty about taking today off."

You can't beat that for a close to a perfect homecoming.

# THE LECTURE







BY MARIAN VAN LANDINGHAM

## Science fiction, the first ever printed in the *Alumnus*, makes a perfect medium for a

"I suppose you have seen an old-fashioned pressure cooker in a museum. As you may recall, individual jars of vegetables were placed in a wire rack inside the heavy steel container. Then water was poured into the vessel until a depth of two to three inches was reached. After this, the top was placed on the container and bolted down with six screws placed along the perimeter of the circular construction. The cooker was placed over a heat source and when a few bubbles of water escaped through the valve on the top, a loose cap was put over the valve and the temperature of the heat source lowered. The cooker would then cook the vegetables for the appointed time, sealing in the vitamins of the fresh vegetables, and preserving them, but usually subtly changing their character and flavor.

"Well, about mid-century and especially a decade later when the Russians and the Americans were engaged in an intraglobal contest to see who could throw a capsule highest into space — they used to insert students in *universities* which were, in a manner of speaking, pressure cookers, and cook them for four years — sealing in as much knowledge as possible. It was believed that the pressure-cooking would preserve them later when they would face problems outside the university container, but this was even then debated. Certainly, no student lived in this environment for four years without being changed.

"Pressure-cooking students was, of course, often quite tricky because occasionally a student would explode. You know — commit suicide, or more often, suffer from nervous or physical breakdowns. Student infirmaries always

tended to fill just before final examination time, when the pressure built to a climax.

"Usually, however, those who could not stand the terrible pressure would try to escape to institutions where they considered the pressure was not maintained at such a high level, or they would try to find work. Those who could not finish at any school were shamed with the term *dropouts*.

"I know from experience that the pressure was kept so high in the prestige colleges and universities that those who stayed were often in a state of near collapse. I can still remember the horror of studying to three in the morning and then draping over a stiff, wooden, rack of a chair at eight o'clock, trying to focus my eyes enough to read a chalk-dusty blackboard before the teacher erased what was written there upon — and those professors could erase very rapidly — and occasionally the chalk would s-scratch."

Kenneth John Barlow twitched his shoulders at what he had heard himself say, firmly grasped the padded arm rests of his contour chair and slowly inhaled a draft of oxygen from a vent outlet inches from his nostrils. He attempted to relax by allowing his skeleton, muscles and tendons to feel the gentle, cradle-like oscillation of the Very Super-Super Skycraft in which he and 400 other persons were riding at blistering speed through the upper atmosphere. He rested his eyes on the soothing, purposefully cheerful, soft pinks and daisy yellows of the walls and furnishings.

Barlow would not have continued recalling what he considered a rather unpleasant memory had not his nephew,

Robert Jay Barlow, who was sitting in the next contour chair, looked up from his scroll of computer printout. Interested. Kenneth John could not perceive a single Zero or One reflected in the youth's eyes.

And so with this rather considerable encouragement, he decided to continue his monologue — to attempt to give the young man a better comprehension of the dark ages from which humanity had so recently emerged.

"You may indeed be thankful, Robert, that this is the gloriously enlightened year 2,000 A.D. Until well past the half-century mark higher education was quite primitive. Almost all colleges offered a basic term of four years. If a student scored passable grades on an innumerable number of examination hurdles, in the right subjects (free choice of courses was very circumscribed), he would be awarded a certain type of degree at one of the great June celebrations in which all participants wore medieval, flowing robes. Further specialization for a particular profession ordinarily meant another series of hurdles and finally, another degree. Except for those who elected the academic profession, few individuals had any significant contact with the university after they received their degree or degrees. They departed into the outside world never to return except at reunion time and with little intention to ever study hard again.

"During the four-year *cooking* the examination hurdles were considered proof that so much information had been stuck into the brain. No matter that it gave way almost as quickly as the student learned new information. Theoretically, of course, this was not sup-

posed to happen and an individual's knowledge was presumed to pyramid.

"Every student was expected to develop a broad base of knowledge. This meant that a small dose of information from many different fields was administered to make a student what they once called *well rounded*. This was followed by increased levels of specialization culminating in the professional peak.

"By mid-century, however, the broad-base concept was already impossible to implement because of the rapid expansion of human knowledge. Certainly, this could not be achieved in a meager, specialization-crowded, four years.

"What happened, as you might expect, was that students received a comparatively thorough education in their specialties and just enough in other branches of human knowledge to make them scornful. And introductory courses used to make people terribly scornful. The first course in almost any field dealt with learning a new terminology and a certain amount of factual, background material. A student had to take four or five courses in an area before he began to meet exciting ideas. I can still remember the deadliness of learning the Latin names for the great variety of little plants in my first Botany course.

"The scorn developed by exposure to survey courses in accordance with the theory of well-roundedness was most assuredly a contributing factor to the *Great Misunderstanding*. The *Great Misunderstanding* infected colleges that stood among city towers, beside main streets in small towns and on rural hill-tops. In essence it was an insistence on primacy of each of the three great

branches of academe: the humanities, and engineering.

"Scientists, of course, considered themselves the high priests of the world with the *method* of the Holy of Holies of laboratories within research centers, wondrous things happened in the direction of the priests. Since the public could not understand their priestly tongues, it was by their power.

"The engineers were the laymen who put ideas to work. They shook their heads at the theoretically-oriented scientists.

"And the humanists were the old priests. And when they mumbled something about the human condition, others thought they were fashionable and were converted. Humanists succumbed to the new technology to be gained by *scientific methods*, or *stipulated memorization* of facts for forcing their students to digest tough chunks of the history of thought."

Kenneth John Barlow, in a minute, took a deep breath, inserted a plastic straw in the refrigerator, and slowly sipped a swart. He mentally noted that according to the jet's flight clock, they were minutes out of New York. He was from San Francisco. He had been raised for a number of years in various sarcastic and comical remarks typically used by students of one branch of knowledge in the other two.

At this rather cruelly





BY MARIAN VAN LANDINGHAM

## Science fiction, the first ever printed in the *Alumnus*, makes a perfect medium for a look at today's education

"I suppose you have seen an old-fashioned pressure cooker in a museum. As you may recall, in jars of vegetables were placed wire rack inside the heavy steel container. Then water was poured into the until a depth of two to three inches reached. After this, the top was on the container and bolted down six screws placed along the perimeter of the circular construction. The top was placed over a heat source when a few bubbles of water escaped through the valve on the top, a cap was put over the valve and the temperature of the heat source lowered. The pressure cooker would then cook the vegetables for the appointed time, sealing in vitamins of the fresh vegetables, and serving them, but usually subtly tingling their character and flavor.

Well, about mid-century and especially a decade later when the Russians and Americans were engaged in an imbalanced contest to see who could throw the satellite highest into space — they used to sort students in universities which in a manner of speaking, pressure-cooked them for four years — getting in as much knowledge as possible. It was believed that the pressure-cooking would preserve them later when they would face problems outside the university container, but this was even debated. Certainly, no student lived in that environment for four years without being changed.

The pressure-cooking students was, of course, often quite tricky because occasionally a student would explode. You could commit suicide, or more often, from nervous or physical breakdowns. Student infirmaries always

tended to fill just before final examination time, when the pressure built to a climax.

"Usually, however, those who could not stand the terrible pressure would try to escape to institutions where they considered the pressure was not maintained at such a high level, or they would try to find work. Those who could not finish at any school were shamed with the term *dropouts*.

"I know from experience that the pressure was kept so high in the prestige colleges and universities that those who stayed were often in a state of near collapse. I can still remember the horror of studying to three in the morning and then draping over a stiff, wooden, rack of a chair at eight o'clock, trying to focus my eyes enough to read a chalk-dusty blackboard before the teacher erased what was written there upon — and those professors could erase very rapidly — and occasionally the chalk would s-scratch."

Kenneth John Barlow twitched his shoulders at what he had heard himself say, firmly grasped the padded arm rests of his contour chair and slowly inhaled a draft of oxygen from a vent outlet inches from his nostrils. He attempted to relax by allowing his skeleton, muscles and tendons to feel the gentle, cradle-like oscillation of the Very Super-Super Skycraft in which he and 400 other persons were riding at blistering speed through the upper atmosphere. He rested his eyes on the soothing, purposefully cheerful, soft pinks and daisy yellows of the walls and furnishings.

Barlow would not have continued recalling what he considered a rather unpleasant memory had not his nephew,

Robert Jay Barlow, who was sitting in the next contour chair, looked up from his scroll of computer printout. Interested. Kenneth John could not perceive a single Zero or One reflected in the youth's eyes.

And so with this rather considerable encouragement, he decided to continue his monologue — to attempt to give the young man a better comprehension of the dark ages from which humanity had so recently emerged.

"You may indeed be thankful, Robert, that this is the gloriously enlightened year 2,000 A.D. Until well past the half-century mark higher education was quite primitive. Almost all colleges offered a basic term of four years. If a student scored passable grades on an innumerable number of examination hurdles, in the right subjects (free choice of courses was very circumscribed), he would be awarded a certain type of degree at one of the great June celebrations in which all participants wore medieval, flowing robes. Further specialization for a particular profession ordinarily meant another series of hurdles and finally, another degree. Except for those who elected the academic profession, few individuals had any significant contact with the university after they received their degree or degrees. They departed into the outside world never to return except at reunion time and with little intention to ever study hard again.

"During the four-year *cooking* the examination hurdles were considered proof that so much information had been stuck into the brain. No matter that it gave away almost as quickly as the student learned new information. Theoretically, of course, this was not sup-

posed to happen and an individual's knowledge was presumed to pyramid.

"Every student was expected to develop a broad base of knowledge. This meant that a small dose of information from many different fields was administered to make a student what they once called *well rounded*. This was followed by increased levels of specialization culminating in the professional peak.

"By mid-century, however, the broad-base concept was already impossible to implement because of the rapid expansion of human knowledge. Certainly, this could not be achieved in a meager, specialization-crowded, four years.

"What happened, as you might expect, was that students received a comparatively thorough education in their specialties and just enough in other branches of human knowledge to make them scornful. And introductory courses used to make people terribly scornful. The first course in almost any field dealt with learning a new terminology and a certain amount of factual, background material. A student had to take four or five courses in an area before he began to meet exciting ideas. I can still remember the deadliness of learning the Latin names for the great variety of little plants in my first Botany course.

"The scorn developed by exposure to survey courses in accordance with the theory of well-roundedness was most assuredly a contributing factor to the *Great Misunderstanding*. The *Great Misunderstanding* infected colleges that stood among city towers, beside main streets in small towns and on rural hill-tops. In essence it was an insistence on primacy of each of the three great

branches of academe: the sciences, the humanities, and engineering.

"Scientists, of course, considered themselves the high priests of the new world with the *method* to save it. In the Holy of Holies of laboratories deep within research centers, marvelous and wondrous things happened under the direction of the priests in white robes. Since the public could not understand their priestly tongues, it was more awed by their power.

"The engineers were the no-nonsense laymen who put ideas to work and often shook their heads at the *long-haired*, theoretically-oriented scientists.

"And the humanists were, naturally, the old priests. And when they kept mumbling something about the *spirit* of man, others thought them a bit old-fashioned and were convinced when the humanists succumbed to the easy dollars to be gained by superficially using *scientific methods*, or far worse, substituted memorization of myriad facts for forcing their students to bite off and digest tough chunks of man's great history of thought."

Kenneth John Barlow stopped for a minute, took a deep breath, inserted his plastic straw in the refreshment bar built into the back of the seat in front of him, and slowly sipped a swallow or two. He mentally noted that according to the jet's flight clock, they were fifteen minutes out of New York and forty from San Francisco. He then extemporized for a number of minutes on various sarcastic and condescending remarks typically used by professors and students of one branch in describing those in the other two.

At this rather cruelly titillating point

in the monologue, the youth at Barlow's side, who was now fully recovered from the non-verbal concentration in which he had been immersed for several hours prior to his flight, was becoming more attentive. He even uttered, "Really? Was all of this indeed true? I find it quite hard to believe."

The comments were so flatly unbelieving in tone that his uncle felt as though a gauntlet had been thrown at his feet. He also had the unnerving feeling that a microscope was beginning to be focused on himself and on his interpretation of history.

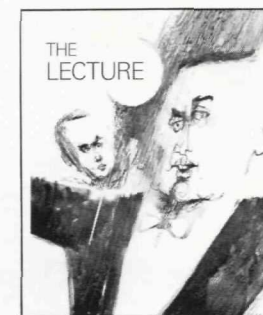
But thus challenged, something deep within Kenneth John rallied and with slow, cool precision his words, sentences and paragraphs marched forward:

"The machines of the world finally brought this academic war to a conclusion. Let me explain. Every year newer and more marvelous machines came into being until it eventually became lucid to even the most closed minds — that the only thing machines would never be able to do would be to create. And yet, encouraging creativity was the one task of which colleges and universities were least capable.

"Linguists became aware of this when they saw machines translate faster and more accurately than they could, and historians when they were introduced to computers with far superior memories to theirs. Suddenly the significance, the meaning, of facts was all that was important.

"Scientists with little imagination found themselves as little more than laboratory technicians directing a menagerie

(continued on page 22)





## THE LECTURE—continued

of machinery. And there were uncreative engineers who used computer programs designed by others to feed facts into the transistorized brains. All they had to do was wait for the computer to tell them the optimum answers to design problems.

"Machines forced the public and educators to re-evaluate many previously held concepts. Throughout the past there had always been hazy discussions about encouraging creativity, but the word had suffered degradation through over-use and misuse — especially in relation to such things as finger-painting and pop art. But finally, it was realized that the ability to look on the world with childlike open eyes, to explore new patterns of thought, to avoid subservience to old and trite patterns, and thus to find new solutions is as important to the mathematician, the physicist, the engineer, the philosopher, and the historian as it is to the writer, the painter, or the composer.

"Once this was recognized, the academic world was faced with the problem of how to promote the development of creative ability. It was generally understood that creativity was by definition something that could not be taught in a formal sense.

"Turning to the experience of schools of art and architecture, they decided the best approach was to assign projects with perhaps some limitations, and ask students to arrive at their own solutions — with the understanding that *right* and *wrong* judgements would not be made. The teacher would instead take into consideration the total reasoning process in arriving at the solution and suggest possible problems and flaws. This was not in conflict with the theoretical approach of students and professors to research projects in the sciences, so in this case, encouragement of creativity was largely a matter of *more* individual and original research.

"After some consideration, however, the new academicians decided that term papers representing research in the humanities did not encourage creativity and that the rules for writing them should be changed. By the old rules the teachers virtually guaranteed that the

papers would consist largely of strings of quotations and paraphrases with no sign of original thought, when they forbade personal opinion. This had to be changed.

"Machines played an important role in making the new emphasis on creativity possible. Dormitory rooms were equipped with telephone-computer outlets feeding into the automatic information retrieval systems of libraries and into big centralized computing facilities that could do mathematical detail work. This, in addition to closed circuit television, eliminated the necessity for lectures and gave the student new tools for learning by himself. He had more time for his projects and for investigating a great variety of fields that might be of passing or continuing interest. As you must know, Robert, this kind of freedom is of enormous importance in encouraging creativity. There must be a wide variety of stimuli and the person must have time to react to these.

"Students were not the only ones to benefit from the end of the lecture system, of course. Faculty members who did not have the talent of professional entertainers were quite pleased not to have to face great crowds of bored countenances any more."

Barlow concluded this remark with vigorous upward and outward movement of both hands indicating the sheer jubilation of those emancipated professors. His nephew jerked to the right to avoid the enthusiastic gesture.

The youth was surprised by the exhilaration his uncle seemed to be feeling. *Certainly, the story is fairly interesting but uncle is usually so matter-of-fact and now he is talking like he thinks this is still exciting his voice is getting a little too loud I don't like the way those other people are beginning to look at us.*

Overpowered by the vim expounding so near him, however, the youth sank further into his contour chair and did listen and heard his uncle describe how the emphasis on creativity fortunately coincided with the abolishment of the universal military draft and reduced pressures from the employment market.

"The draft was ended because the total eligible population had become so large that a comparatively smaller and smaller percentage was needed. The labor market wanted fewer but more

creative people. This meant there was no longer any great pressure for students to get out of school, and so it was decided to take the four-year *lid* off education and to let students stay as long as they felt they could benefit from the opportunities offered by the campus!

"And with the *lid*, and required courses, and the lecture system, went the series of deadlines for information absorption!"

Barlow made this remark with one hand raised, the finger up in an exclamation point gesture. There was no doubt that he was feeling a heady power, a power that he must have secretly longed for since his student days, the power of the lecturer. He had a great urge to pace and talk, up and down the aisle, up and down — but he did not have the nerve. And no one who had not endured the old system would appreciate his excitement. At least his nephew *had* to listen.

"And it came to pass," he continued, "that by doing away with formal courses, registering and record keeping, college administrations all over the land were dismantled. And the administrators did happily vacate their committee meeting rooms and race back to teaching and research as indeed they had always said they wanted to. And the administration finally withered away to a minority and the elite of the professoring proletariat rejoined the ranks."

There was a pause, a shrug of the shoulders, and then in a modifying tone Barlow added:

"And so now our educational system is marvelously utopian and while there are individuals who waste the opportunities for productive thought that are not guaranteed, creativity is the mark of far more men and women today than it ever was in the past. For now there is the simple choice: to be the master or the slave of the machine.

"I trust you are cognizant of the fact, John Jay, that you just received a standard 55-minute archaic-style lecture and that we are now in San Francisco. Actually, I should have called on you once or twice for I was fully aware that on several occasions your attention faltered. You have my word, however, that I will not subject you to a pop quiz tomorrow morn."



## Who grows the "hair" that crowns a million beauties?

The same Union Carbide whose alloys help keep the crunch in rock crushers.

The "hair" is our DYNEL mod-acrylic fiber. It looks like real hair and feels like it.

It's the same DYNEL that's used to make luxurious deep-pile coats. It's the same fiber that's used to make filters for heavy-duty industrial air systems and home air conditioners. And its versatility is the reason why we'll be "growing" millions of extra pounds of DYNEL this year.

Lots of things are going on at Union Carbide. We're producing new alloys to re-surface equipment such as rock-crusher rolls and keep them in action longer. Other new alloys are helping the

chemical industry with stacks of acids; we've recently developed new silicone with greatly improved properties for use by the automotive industry. To keep bringing you many other new products, we'll be investing billions of dollars in research and development during the next few years.

Union Carbide Corporation, 270 Park Avenue, New York, N. Y. 10017. In Canada: Union Carbide Canada Limited, Toronto. Divisions: Carbon Products, Chemicals, Consumer Products, Fibers & Fabrics, Food Products, International, Linde, Mining & Metals, Nuclear, Olefins, Plastics, Silicones, S.



## THE LECTURE—continued

of machinery. And there were uncreative engineers who used computer programs designed by others to feed facts into the transistorized brains. All they had to do was wait for the computer to tell them the optimum answers to design problems.

"Machines forced the public and educators to re-evaluate many previously held concepts. Throughout the past there had always been hazy discussions about encouraging creativity, but the word had suffered degradation through over-use and misuse — especially in relation to such things as finger-painting and pop art. But finally, it was realized that the ability to look on the world with childlike open eyes, to explore new patterns of thought, to avoid subservience to old and trite patterns, and thus to find new solutions is as important to the mathematician, the physicist, the engineer, the philosopher, and the historian as it is to the writer, the painter, or the composer.

"Once this was recognized, the academic world was faced with the problem of how to promote the development of creative ability. It was generally understood that creativity was by definition something that could not be taught in a formal sense.

"Turning to the experience of schools of art and architecture, they decided the best approach was to assign projects with perhaps some limitations, and ask students to arrive at their own solutions — with the understanding that *right* and *wrong* judgements would not be made. The teacher would instead take into consideration the total reasoning process in arriving at the solution and suggest possible problems and flaws. This was not in conflict with the theoretical approach of students and professors to research projects in the sciences, so in this case, encouragement of creativity was largely a matter of *more* individual and original research.

"After some consideration, however, the new academicians decided that term papers representing research in the humanities did not encourage creativity and that the rules for writing them should be changed. By the old rules the teachers virtually guaranteed that the

papers would consist largely of strings of quotations and paraphrases with no sign of original thought, when they forbade personal opinion. This had to be changed.

"Machines played an important role in making the new emphasis on creativity possible. Dormitory rooms were equipped with telephone-computer outlets feeding into the automatic information retrieval systems of libraries and into big centralized computing facilities that could do mathematical detail work. This, in addition to closed circuit television, eliminated the necessity for lectures and gave the student new tools for learning by himself. He had more time for his projects and for investigating a great variety of fields that might be of passing or continuing interest. As you must know, Robert, this kind of freedom is of enormous importance in encouraging creativity. There must be a wide variety of stimuli and the person must have time to react to these.

"Students were not the only ones to benefit from the end of the lecture system, of course. Faculty members who did not have the talent of professional entertainers were quite pleased not to have to face great crowds of bored countenances any more."

Barlow concluded this remark with vigorous upward and outward movement of both hands indicating the sheer jubilation of those emancipated professors. His nephew jerked to the right to avoid the enthusiastic gesture.

The youth was surprised by the exhilaration his uncle seemed to be feeling. *Certainly, the story is fairly interesting but uncle is usually so matter-of-fact and now he is talking like he thinks this is still exciting his voice is getting a little too loud I don't like the way those other people are beginning to look at us.*

Overpowered by the vim expounding so near him, however, the youth sank further into his contour chair and did listen and heard his uncle describe how the emphasis on creativity fortunately coincided with the abolishment of the universal military draft and reduced pressures from the employment market.

"The draft was ended because the total eligible population had become so large that a comparatively smaller and smaller percentage was needed. The labor market wanted fewer but more

creative people. This meant there was no longer any great pressure for students to get out of school, and so it was decided to take the four-year *lid* off education and to let students stay as long as they felt they could benefit from the opportunities offered by the campus!

"And with the *lid*, and required courses, and the lecture system, went the series of deadlines for information absorption!"

Barlow made this remark with one hand raised, the finger up in an exclamation point gesture. There was no doubt that he was feeling a heady power, a power that he must have secretly longed for since his student days, the power of the lecturer. He had a great urge to pace and talk, up and down the aisle, up and down — but he did not have the nerve. And no one who had not endured the old system would appreciate his excitement. At least his nephew *had* to listen.

"And it came to pass," he continued, "that by doing away with formal courses, registering and record keeping, college administrations all over the land were dismantled. And the administrators did happily vacate their committee meeting rooms and race back to teaching and research as indeed they had always said they wanted to. And the administration finally withered away to a minority and the elite of the professoring proletariat rejoined the ranks."

There was a pause, a shrug of the shoulders, and then in a modifying tone Barlow added:

"And so now our educational system is marvelously utopian and while there are individuals who waste the opportunities for productive thought that are not guaranteed, creativity is the mark of far more men and women today than it ever was in the past. For now there is the simple choice: to be the master or the slave of the machine.

"I trust you are cognizant of the fact, John Jay, that you just received a standard 55-minute archaic-style lecture and that we are now in San Francisco. Actually, I should have called on you once or twice for I was fully aware that on several occasions your attention faltered. You have my word, however, that I will not subject you to a pop quiz tomorrow morn."



## Who grows the "hair" that crowns a million beauties?

The same Union Carbide whose alloys help keep the crunch in rock crushers.

The "hair" is our DYNEL mod-acrylic fiber. It looks like real hair and feels like it.

It's the same DYNEL that's used to make luxurious deep-pile coats. It's the same fiber that's used to make filters for heavy-duty industrial air systems and home air conditioners. And its versatility is the reason why we'll be "growing" millions of extra pounds of DYNEL this year.

Lots of things are going on at Union Carbide. We're producing new alloys to re-surface equipment such as rock-crusher rolls and keep them in action longer. Other new alloys are helping the

chemical industry stop costly attacks of acids and corrosives. And we've recently introduced some new silicone rubber compounds with greatly improved resiliency for use by the aerospace and automotive industries.

To keep bringing you these and many other new and improved products, we'll be investing half a billion dollars on new plant construction during the next two years.

**UNION  
CARBIDE**

Union Carbide Corporation, 270 Park Avenue, New York, N. Y. 10017. In Canada: Union Carbide Canada Limited, Toronto • Divisions: Carbon Products, Chemicals, Consumer Products, Fibers & Fabrics, Food Products, International, Linde, Mining & Metals, Nuclear, Olefins, Plastics, Silicones, Stellite



## PROFILES OUT OF TECH'S PAST

*The Alumnus presents a series of articles on the history of Georgia Tech condensed from the book, Dress Her in White and Gold, by Robert B. Wallace, Jr. Copyrighted 1963 by the Georgia Tech Foundation.*



## VI. THE UNIVERSITY SYSTEM

### Dr. Marion Luther Brittain does his part to save education in Georgia

The eleven members who comprised the first Board of Regents appointed by a Georgia governor (Richard B. Russell, Jr.) took over the direction of all of the state's institutions of higher learning on January 1, 1932. This sounded the final death knell for Tech's own Board of Trustees, an organization of dedicated men that had served the institution extremely well since its founding.

Although the Tech board was self-perpetuating (or perhaps because of this fact), it was always one of superior personalities—men with determination and vision. Without this Board of Trustees, Tech would certainly have been a much lesser school by the time it came for them to relinquish control of the school.

During its 45-year lifetime, the Board of Trustees had taken a dream of one lone man and the dedicated action of another and made of them an institution of national prominence. In only 43 years it had created a \$2,750,000 property out of one valued at only \$140,000. The most amazing thing about the accomplishments of these men is that they did it all with disturbingly small allocations

of state funds. Most of the money for the buildings, the equipment, and the land came from sources other than the state treasury. The ability of these men to raise money from friends and foundations to build a state-owned institution would have been laudable even in the present when money flows much more freely for educational support. In the era in which they operated the feat was downright unbelievable.

First among the many problems facing the Regents was the financial crisis in the units of the system brought about by the depression. Over a million dollars in obligations had piled up during the three years prior to the formation of the University System because the state appropriations had not been paid in full. During 1932 to help reduce the obligations, the state drastically cut the amounts given to the various institutions which brought about a necessary lowering of salaries to the teachers, a step which did little to further endear the new system to the faculty members.

Linked to this problem was one of overlapping facilities and course offerings

among the units of the system. The system was full of duplicated efforts and institutions which were calling themselves colleges while teaching little more than high school subjects. The first move to cut down the number of institutions was the merger of the then independently operated State College of Agriculture and State Normal School (both located at Athens) with the University of Georgia. This left 25 units in the System, still too many according to most educational authorities. Next, the Regents secured the services of five nationally-known educators through the General Education Board. These college presidents and teachers were supplemented by specialists in the various fields of education, and their survey report on the future operation of the University System was the big factor that led to the current mode of operation of the System.

In the survey report tendered in early 1933, the committee first turned its attention to the constitution of the Board of Regents. Briefly, the report offered the following opinions:

"(1) Members of the Board should

represent the entire state rather than the congressional districts.

"(2) Appointments should be made for 10 or 12 years, one to expire each year so that no one governor would have the power to appoint a large number during his administration.

"(3) The governor should not be an ex-officio member of the Board in order to reduce the possibility of political interference."

The report then urged strongly that there be an immediate sharp reduction in the number of units in the system. Along with this recommendation, the survey committee suggested that the state give more support to the three units then considered the leading ones in the system—the University of Georgia, the Georgia School of Technology, and the Women's College at Milledgeville.

Using this report as documentary evidence of the correctness of their own conclusions, the Regents immediately eliminated seven minor units of the system. They then forced the discontinuance of high school training at the state colleges and classified the remaining units into junior and senior colleges. The old Georgia Tech Evening School of Commerce was separated from Tech's control and became a department of Adult Education of the University of Georgia with the resulting transfer of all work of this level from Athens to Atlanta. This unit eventually became the Georgia State College of Business Administration and is now one of the larger units in the University System.

In discussing the controversial question of the teaching of business administration at both the University and at Tech, the survey report clearly stated "The State cannot adequately support two schools of Commerce. The location of this school at the University will, in the long run, despite the difficult problem, prove most advantageous."

The Regents, leaning on this paragraph for their testament, then took the big step and directed that all engineering work at the University should be transferred to Georgia Tech and all commerce teaching at Tech should be moved to Athens. The dictum stirred up one of the biggest nests of hornets in Tech's history. The civil and electrical engineering work done at Athens was conducted on a very limited scale according to the 1933 *Annual Report of the Regents*, but there were 447 students enrolled in the Tech Commerce Department and many of them were athletes. Tech students and alumni construed this as a political measure inspired by Georgia alumni to ruin Tech's athletic program while the administration and faculty considered it in

the more practical light as a move that would drain off over 20 percent of the student body. In the depression years, this was a serious consideration.

Mass meetings were held on the campus to get the Tech people organized for their fight against this move. But, even after Brittain went to the Regents with his own warning of the possible dire consequences of his decision, Chairman Hughes Spalding of Atlanta told the Tech president, "That is all right for you fellows to act that way. If I were a Tech man, I would do likewise, but we are going to stand firm anyhow for we are compelled to economize and cut out duplication."

Brittain, faced on the campus with a worried faculty and a restless student body, decided to make a public statement of his feelings on the subject on Homecoming Day, November 25, 1933, after the Class of 1933 had presented a painting of the president to the school. Brittain said:

"I find it difficult to convey in words the appreciation which I feel for this notable compliment to myself and for the gift to the Georgia School of Technology by the members of the Class of 1933. It is particularly significant that some of these young men are the survivors of the Department of Commerce just taken from us at Georgia Tech. I have an idea that—consciously or unconsciously—their feeling that I was so at one with them in regard to this loss may have had something to do with this token of their affection and esteem for I have never concealed my belief that it is not to the best interests of this institution, city, or state to remove the Department of Commerce from the Georgia School of Technology.

"It could not aid as a measure of economy from any standpoint and so logical is this location in Atlanta for such a department that I believe time will show the wisdom of its return. The responsibility which I have carried during these last years in guiding the fortunes of Georgia Tech has forced upon me a clear perception of our best interests and I do not think that they are so definitely understood even by those of our own friends, who would restrict our activities. My own view is that this should be a distinct technical college rather than the Engineering Department of the University of Georgia. Engineers certainly need training in Business Administration. What I fear most, however, is that this first elimination will lead to the loss of other departments, as of Architecture, for instance, with the purpose of making Georgia Tech a mere subsidiary of the University at Athens instead of a com-

plete techni cannot affo school whic try as well lence of it colleges wh the Mason have fairly prove by 1 since I hav

"In 1925 lected this schools in Naval R.O. the stateme of our exc and Science "In 1925 tion—after ern colleges of Technolo award of : training.

"In 1933 'Approved American U any college

"Not inte sonnel of th this hard-w to say that Department in spite of Georgia Te share of al of Regents ural leaning We need an our high pl

"I have s us rather t gift from th you to kno proof of yo dence of th by the stud of Technolo

The Rege depression : merce Depa its athletic survive. In Commerce: ball fortune: for the 1934

However, one big pre Commerce : Atlanta. Bu talk about e new unit of College of eventually b same area Athens. In a the Regents it somewher



## PROFILES OUT OF TECH'S PAST

*The Alumnus presents a series of articles on the history of Georgia Tech condensed from the book, Dress Her in White and Gold, by Robert B. Wallace, Jr. Copyrighted 1963 by the Georgia Tech Foundation.*



## VI. THE UNIVERSITY SYSTEM

### Dr. Marion Luther Brittain does his part to save education in Georgia

men members who comprised the Board of Regents appointed by the governor (Richard B. Russell), over the direction of all of the institutions of higher learning on 1932. This sounded the final bell for Tech's own Board of Trustees, an organization of dedicated men who had served the institution excellently since its founding. The Tech board was self-perpetuating (or perhaps because of this) as always one of superior men with determination and without this Board of Trustees, it certainly would have been a much poorer school by the time it came for relinquish control of the school. In its 45-year lifetime, the Board of Regents had taken a dream of one of the dedicated action of an organization of men of eminence. In only 43 years it had a \$2,750,000 property valued at only \$140,000. The sad thing about the accomplishment of these men is that they did not have disturbingly small allocations

of state funds. Most of the money for the buildings, the equipment, and the land came from sources other than the state treasury. The ability of these men to raise money from friends and foundations to build a state-owned institution would have been laudable even in the present when money flows much more freely for educational support. In the era in which they operated the feat was downright unbelievable.

First among the many problems facing the Regents was the financial crisis in the units of the system brought about by the depression. Over a million dollars in obligations had piled up during the three years prior to the formation of the University System because the state appropriations had not been paid in full. During 1932 to help reduce the obligations, the state drastically cut the amounts given to the various institutions which brought about a necessary lowering of salaries to the teachers, a step which did little to further endear the new system to the faculty members.

Linked to this problem was one of overlapping facilities and course offerings

among the units of the system. The system was full of duplicated efforts and institutions which were calling themselves colleges while teaching little more than high school subjects. The first move to cut down the number of institutions was the merger of the then independently operated State College of Agriculture and State Normal School (both located at Athens) with the University of Georgia. This left 25 units in the System, still too many according to most educational authorities. Next, the Regents secured the services of five nationally-known educators through the General Education Board. These college presidents and teachers were supplemented by specialists in the various fields of education, and their survey report on the future operation of the University System was the big factor that led to the current mode of operation of the System.

In the survey report tendered in early 1933, the committee first turned its attention to the constitution of the Board of Regents. Briefly, the report offered the following opinions:

"(1) Members of the Board should

represent the entire state rather than the congressional districts.

"(2) Appointments should be made for 10 or 12 years, one to expire each year so that no one governor would have the power to appoint a large number during his administration.

"(3) The governor should not be an ex-officio member of the Board in order to reduce the possibility of political interference."

The report then urged strongly that there be an immediate sharp reduction in the number of units in the system. Along with this recommendation, the survey committee suggested that the state give more support to the three units then considered the leading ones in the system—the University of Georgia, the Georgia School of Technology, and the Women's College at Milledgeville.

Using this report as documentary evidence of the correctness of their own conclusions, the Regents immediately eliminated seven minor units of the system. They then forced the discontinuance of high school training at the state colleges and classified the remaining units into junior and senior colleges. The old Georgia Tech Evening School of Commerce was separated from Tech's control and became a department of Adult Education of the University of Georgia with the resulting transfer of all work of this level from Athens to Atlanta. This unit eventually became the Georgia State College of Business Administration and is now one of the larger units in the University System.

In discussing the controversial question of the teaching of business administration at both the University and at Tech, the survey report clearly stated "The State cannot adequately support two schools of Commerce. The location of this school at the University will, in the long run, despite the difficult problem, prove most advantageous."

The Regents, leaning on this paragraph for their testament, then took the big step and directed that all engineering work at the University should be transferred to Georgia Tech and all commerce teaching at Tech should be moved to Athens. The dictum stirred up one of the biggest nests of hornets in Tech's history. The civil and electrical engineering work done at Athens was conducted on a very limited scale according to the 1933 Annual Report of the Regents, but there were 447 students enrolled in the Tech Commerce Department and many of them were athletes. Tech students and alumni construed this as a political measure inspired by Georgia alumni to ruin Tech's athletic program while the administration and faculty considered it in

the more practical light as a move that would drain off over 20 percent of the student body. In the depression years, this was a serious consideration.

Mass meetings were held on the campus to get the Tech people organized for their fight against this move. But, even after Brittain went to the Regents with his own warning of the possible dire consequences of his decision, Chairman Hughes Spalding of Atlanta told the Tech president, "That is all right for you fellows to act that way. If I were a Tech man, I would do likewise, but we are going to stand firm anyhow for we are compelled to economize and cut out duplication."

Brittain, faced on the campus with a worried faculty and a restless student body, decided to make a public statement of his feelings on the subject on Homecoming Day, November 25, 1933, after the Class of 1933 had presented a painting of the president to the school. Brittain said:

"I find it difficult to convey in words the appreciation which I feel for this notable compliment to myself and for the gift to the Georgia School of Technology by the members of the Class of 1933. It is particularly significant that some of these young men are the survivors of the Department of Commerce just taken from us at Georgia Tech. I have an idea that—consciously or unconsciously—their feeling that I was so at one with them in regard to this loss may have had something to do with this token of their affection and esteem for I have never concealed my belief that it is not to the best interests of this institution, city, or state to remove the Department of Commerce from the Georgia School of Technology.

"It could not aid as a measure of economy from any standpoint and so logical is this location in Atlanta for such a department that I believe time will show the wisdom of its return. The responsibility which I have carried during these last years in guiding the fortunes of Georgia Tech has forced upon me a clear perception of our best interests and I do not think that they are so definitely understood even by those of our own friends, who would restrict our activities. My own view is that this should be a distinct technical college rather than the Engineering Department of the University of Georgia. Engineers certainly need training in Business Administration. What I fear most, however, is that this first elimination will lead to the loss of other departments, as of Architecture, for instance, with the purpose of making Georgia Tech a mere subsidiary of the University at Athens instead of a com-

plete technical college as I desire. Georgia cannot afford to dim the lustre of this school which has won fame in this country as well as abroad through the excellence of its work. We have too few colleges whose reputation extends beyond the Mason and Dixon Line. That we have fairly earned this high place let me prove by facts that have taken place since I have been president.

"In 1925, our Naval Department selected this institution as one of six schools in the United States to do its Naval R.O.T.C. work, and did so with the statement that it was largely because of our excellent work in Mathematics and Science.

"In 1929, the Guggenheim Foundation—after a year's survey among Southern colleges—selected the Georgia School of Technology as the best suited for its award of \$300,000 for Aeronautical training.

"In 1931, we were placed on the 'Approved List' of the Association of American Universities—the highest rank any college may attain.

"Not intentionally would the fine personnel of the Board of Regents diminish this hard-won position, but I am frank to say that this loss of our Commerce Department would never have occurred—in spite of our Survey Commission—if Georgia Tech had been given our just share of alumni members on the Board of Regents with the instinctive and natural leaning towards their Alma Mater. We need and want your aid to maintain our high place.

"I have spoken of dangers that beset us rather than in appreciation of this gift from the Class of 1933, but I want you to know that I shall cherish this proof of your consideration and the evidence of the affection always shown me by the students of the Georgia School of Technology."

The Regents stood firm and despite the depression and the move of the Commerce Department to Athens, Tech and its athletic program both continued to survive. In fact after the move of the Commerce Department, the Tech football fortunes took an upturn and except for the 1934 season, the teams did well.

However, Brittain was correct in his one big prediction in this speech. The Commerce School finally came back to Atlanta. But not to Tech. After all the talk about elimination of duplication, a new unit of the system (Georgia State College of Business Administration) eventually began to offer a degree in the same area as the one still offered at Athens. In avoiding duplication one place the Regents had done nothing but start it somewhere else at a much higher cost.





## ***WORLD TRADER***

From Argentina to Australia . . . from Tanzania to Turkey, GM's familiar trademark is constantly on the go from country to country throughout the world.

With 49 manufacturing, assembly or distribution centers in 22 foreign countries, employing more than 150,000 people, General Motors sells its products in more than 150 countries.

Who benefits? Everybody. Overseas customers get vehicles and other useful products built to their precise requirements. Resultant taxes, wages and technical skills help stimulate the economy of foreign countries. The U. S. gets vital inflow of dollars from overseas sales.

And it's all made possible by the people of General Motors . . . at home and abroad.

**General Motors Is People...**  
making better things for you

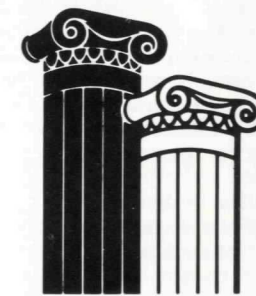
## **HOW CAN YOU MEASURE SUCH**

We measure it in terms of

By the service and  
we provide to our  
and by the success  
highly qualified career  
in eleven

That's why P. S. Smith  
Planned  
Planned

Plan your career  
Piedmont South



**PIEDMONT  
INSURANCE COMPANY**

STANFORD Y. SMITH, C. L. U.  
Executive Vice President, Agency

Home Office: 1197 Peachtree Street, N. E. — Atlanta  
Phone: 875-0621





## ***WORLD TRADER***

From Argentina to Australia . . . from Tanzania to Turkey, GM's familiar trademark is constantly on the go from country to country throughout the world.

With 49 manufacturing, assembly or distribution centers in 22 foreign countries, employing more than 150,000 people, General Motors sells its products in more than 150 countries.

Who benefits? Everybody. Overseas customers get vehicles and other useful products built to their precise requirements. Resultant taxes, wages and technical skills help stimulate the economy of foreign countries. The U. S. gets vital inflow of dollars from overseas sales.

And it's all made possible by the *people* of General Motors . . . at home and abroad.

**General Motors Is People...**  
making better things for you

## **HOW CAN YOU MEASURE SUCCESS ?**

We measure it in two ways:

By the service and security  
we provide to our clients  
and by the success of our  
highly qualified career agents  
in eleven states.

That's why P. S. stands for  
Planned Success,  
Planned Security.

Plan your career with  
Piedmont Southern Life.



**PIEDMONT SOUTHERN LIFE  
INSURANCE COMPANY**

STANFORD Y. SMITH, C. L. U.  
Executive Vice President, Agency

Home Office: 1197 Peachtree Street, N. E.—Atlanta, Georgia 30309  
Phone: 875-0621



# GEORGIA TECH Journal

A digest of information about Georgia Tech and its alumni

## Coeds Can Take Anything But IM

FROM NOW ON Co-eds at Tech can major in any subject but industrial management. At the request of Tech officials, the Board of Regents of the University System of Georgia, voted recently to admit women to all Tech classes except I.M.

In the past, co-eds have been able to attend Tech only when they wished to take a course not available at other schools in the University System.

A spokesman for the Regents said that Georgia State College in Atlanta offers courses similar to Industrial Management and these would be more accessible to women.

## ROTC Program Switches to Voluntary

SOMETIME THIS QUARTER the revolution in military policy on this campus will be completed. Last quarter a special committee of the Academic Senate recommended, the Senate voted in favor of, and the Board of Regents of the University System put its seal of approval on the elimination of compulsory ROTC at Tech.

But still to be decided by the curriculum committee is the credit to be given for students who choose to take ROTC. For serving six quarters, the Navy group now receives 12 hours credit, the Army 10 and the Air Force six.

"There is considerable feeling," says W. L. Carmichael, a committee member, "that the credit given be made uniform and that it be the minimum—six hours."

Also to be decided is whether to require a boy not enrolling in ROTC to take an equivalent number of hours in other subjects.

The previous decisions and those still to be made will be effective summer quarter for all entering freshmen. They will no longer be required to enroll in, and spend two years in Basic ROTC in one of the services. If they wish to be officers, but do not want the extra load of training during their freshman and sophomore years, they may now go to summer camp before their junior year and then enroll in one of the advanced programs. This arrangement is possible as a result of the Reserve Officers Training Corps Vitalization Act of 1965.

It was after notification from the military about the provisions of the new act, that President Edwin Harrison recommended in a letter to the Academic Senate that it consider putting basic training, like advanced training, on a voluntary basis. A special committee under the chairmanship of J. H. Howey was formed and copies of the original letter from the president sent to all faculty members with an invitation for comments.

"There were no major objections to making the programs voluntary," Howey says.

Howey believes that since there are now more avenues open to the advanced programs there should be no reduction in the number of students eventually entering them.

Now students have longer to decide which service they prefer and those transferring to Tech from junior colleges without ROTC programs will, for the first time, be able to enroll in advanced training.

The '65 Vitalization Act upped the pay of students taking advanced training from \$28 to \$40 a month which should act as additional encouragement.

None of the new decisions *made by Tech* are retroactive.

## M.E. Takes the "Jerk" Out of a Ride

IN THE FUTURE, economy cars may ride almost as comfortably as the big, expensive ones if a Tech Ph.D. student in Mechanical Engineering succeeds in building a greatly improved shock absorber—a shock absorber that will adjust for different road conditions.

Frank Speckhart has already completed the mathematical work on this shock absorber and a digital computer says it will work. It should cut the effects of "jerk" in half. "Jerk," Speckhart says, "is how fast acceleration is changing."

## Canaries Keep Watch in New Building

EVERYTHING is chirp, chirp, hooray! over in the *CheCere* (Chemical Engineering—Ceramic Engineering) Building. Two canaries tweet to each other across the Chemical Engineering corrosion laboratory. Their cages definitely add to the lab's decor, and their songs lift the spirits of the researchers plus

anyone who passes down the first floor hall, but the primary reason for their being there is that they are extremely sensitive to poisonous gases like carbon monoxide. A whiff and they get sick. Fortunately, so far, the birds and the researchers have suffered no ill effects.

The tune is less sprightly over in the Administration Annex but here there is at least one steam pipe that gurgles happily for all the world like a coffee pot.

"I know visitors must wonder why I don't offer them some coffee," explains the office's occupant apologetically. "They probably think I'm terribly impolite."

## Metallurgist Adds Hardness Through Sound

A TECH metallurgist in chemical engineering has been conducting research that may someday greatly reduce the "sensitivity" of newly filled teeth and the possibility of "losing" fillings.

Dr. Robert Hochman has found that if materials used in dental fillings are exposed to ultrasonic frequencies when they are placed in the tooth, they will achieve a high degree of hardness (mechanical strength) in only a half an hour or an hour. With present methods, fillings must often "set" in teeth for years to arrive at this same degree of hardness.

Hochman believes his findings represent a genuine breakthrough in dental research and says preliminary work with certain ultrasonic frequencies and energy levels indicates there may actually be physical adherence between the filling material and the tooth structure—possibly caused by diffusion (atomic movements in the solid) across the filling-tooth surface.

Still to be determined is the actual biological effects of this interaction, but Hochman says that medical researchers in several parts of the country are now checking to see if ultrasonics harm the teeth or the body in any way. If not, then dentists may begin using the new method.

Hochman explains that ultrasonic frequencies speed up the diffusion of mercury through the other metals used in dental amalgam, and this rapid "homogeni-

These five men

were new to the life insurance business . . .

## See how far they've gone with Mass Mutual in just 12 months!

Not all businesses measure success in terms of years served. Take these 5 men as a case in point. Two years ago, not one of them had any experience in the Life Insurance field.

Now they've become the most successful first-year men in their company! Each is his own boss, chooses his own customers, and enjoys earning a living helping people. And the amount of money each earns is in direct proportion to his achievements. No income ceilings. No ladder to climb. A career with Mass Mutual can start anytime; and it can progress as fast as you want it to.

Mass Mutual men work for themselves, but not by themselves! Behind them is a strong company, both at the local agency level and in the home office. For Mass Mutual has over \$3 billion in assets and over a century of experience.

If you're interested in a career like this, write a letter about yourself to: Charles H. Schaaff, President, Massachusetts Mutual Life Insurance Company, Springfield, Mass. He's always interested in good men!

MASSACHUSETTS MUTUAL  
LIFE INSURANCE COMPANY

Springfield, Massachusetts / organized 1851

Some of the Georgia Tech alumni in Massachusetts Mutual service:

Stanley A. Elkan, '22, Macon

William C. Gibson, '39, Atlanta

Donald I. Rosen, C.L.U., '49, I

Henry F. McCamish, Jr., C.L.U.,

Norman C. Oien, '61, Atlanta



# GEORGIA TECH Journal

A digest of information about Georgia Tech and its alumni

## Coeds Can Take Anything But IM

FROM NOW ON Co-eds at Tech can major in any subject but industrial management. At the request of Tech officials, the Board of Regents of the University System of Georgia, voted recently to admit women to all Tech classes except I.M.

In the past, co-eds have been able to attend Tech only when they wished to take a course not available at other schools in the University System.

A spokesman for the Regents said that Georgia State College in Atlanta offers courses similar to Industrial Management and these would be more accessible to women.

## ROTC Program Switches to Voluntary

SOMETIME THIS QUARTER the revolution in military policy on this campus will be completed. Last quarter a special committee of the Academic Senate recommended, the Senate voted in favor of, and the Board of Regents of the University System put its seal of approval on the elimination of compulsory ROTC at Tech.

But still to be decided by the curriculum committee is the credit to be given for students who choose to take ROTC. For serving six quarters, the Navy group now receives 12 hours credit, the Army 10 and the Air Force six.

"There is considerable feeling," says W. L. Carmichael, a committee member, "that the credit given be made uniform and that it be the minimum—six hours."

Also to be decided is whether to require a boy not enrolling in ROTC to take an equivalent number of hours in other subjects.

The previous decisions and those still to be made will be effective summer quarter for all entering freshmen. They will no longer be required to enroll in, and spend two years in Basic ROTC in one of the services. If they wish to be officers, but do not want the extra load of training during their freshman and sophomore years, they may now go to summer camp before their junior year and then enroll in one of the advanced programs. This arrangement is possible as a result of the Reserve Officers Training Corps Vitalization Act of 1965.

It was after notification from the military about the provisions of the new act, that President Edwin Harrison recommended in a letter to the Academic Senate that it consider putting basic training, like advanced training, on a voluntary basis. A special committee under the chairmanship of J. H. Howey was formed and copies of the original letter from the president sent to all faculty members with an invitation for comments.

"There were no major objections to making the programs voluntary," Howey says.

Howey believes that since there are now more avenues open to the advanced programs there should be no reduction in the number of students eventually entering them.

Now students have longer to decide which service they prefer and those transferring to Tech from junior colleges without ROTC programs will, for the first time, be able to enroll in advanced training.

The '65 Vitalization Act upped the pay of students taking advanced training from \$28 to \$40 a month which should act as additional encouragement.

None of the new decisions made by Tech are retroactive.

## M.E. Takes the "Jerk" Out of a Ride

IN THE FUTURE, economy cars may ride almost as comfortably as the big, expensive ones if a Tech Ph.D. student in Mechanical Engineering succeeds in building a greatly improved shock absorber—a shock absorber that will adjust for different road conditions.

Frank Speckhart has already completed the mathematical work on this shock absorber and a digital computer says it will work. It should cut the effects of "jerk" in half. "Jerk," Speckhart says, "is how fast acceleration is changing."

## Canaries Keep Watch in New Building

EVERYTHING is chirp, chirp, hooray! over in the *CheCere* (Chemical Engineering—Ceramic Engineering) Building. Two canaries tweet to each other across the Chemical Engineering corrosion laboratory. Their cages definitely add to the lab's decor, and their songs lift the spirits of the researchers plus

anyone who passes down the first floor hall, but the primary reason for their being there is that they are extremely sensitive to poisonous gases like carbon monoxide. A whiff and they get sick. Fortunately, so far, the birds and the researchers have suffered no ill effects.

The tune is less sprightly over in the Administration Annex but here there is at least one steam pipe that gurgles happily for all the world like a coffee pot.

"I know visitors must wonder why I don't offer them some coffee," explains the office's occupant apologetically. "They probably think I'm terribly impolite."

## Metallurgist Adds Hardness Through Sound

A TECH metallurgist in chemical engineering has been conducting research that may someday greatly reduce the "sensitivity" of newly filled teeth and the possibility of "losing" fillings.

Dr. Robert Hochman has found that if materials used in dental fillings are exposed to ultrasonic frequencies when they are placed in the tooth, they will achieve a high degree of hardness (mechanical strength) in only a half an hour or an hour. With present methods, fillings must often "set" in teeth for years to arrive at this same degree of hardness.

Hochman believes his findings represent a genuine breakthrough in dental research and says preliminary work with certain ultrasonic frequencies and energy levels indicates there may actually be physical adherence between the filling material and the tooth structure—possibly caused by diffusion (atomic movements in the solid) across the filling-tooth surface.

Still to be determined is the actual biological effects of this interaction, but Hochman says that medical researchers in several parts of the country are now checking to see if ultrasonics harm the teeth or the body in any way. If not, then dentists may begin using the new method.

Hochman explains that ultrasonic frequencies speed up the diffusion of mercury through the other metals used in dental amalgam, and this rapid "homogeni-

These five men

were new to the life insurance business . . .

## See how far they've gone with Mass Mutual in just 12 months!

Not all businesses measure success in terms of years served. Take these 5 men as a case in point. Two years ago, not one of them had any experience in the Life Insurance field.

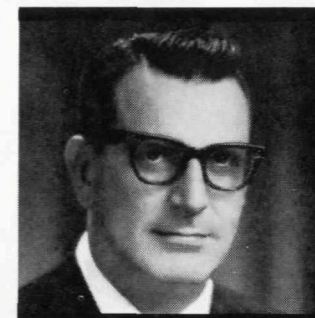
Now they've become the most successful first-year men in their company! Each is his own boss, chooses his own customers, and enjoys earning a living helping people. And the amount of money each earns is in direct proportion to his achievements. No income ceilings. No ladder to climb. A career with Mass Mutual can start anytime; and it can progress as fast as you want it to.

Mass Mutual men work for themselves, but not by themselves! Behind them is a strong company, both at the local agency level and in the home office. For Mass Mutual has over \$3 billion in assets and over a century of experience.

If you're interested in a career like this, write a letter about yourself to: Charles H. Schaaff, President, Massachusetts Mutual Life Insurance Company, Springfield, Mass. He's always interested in good men!

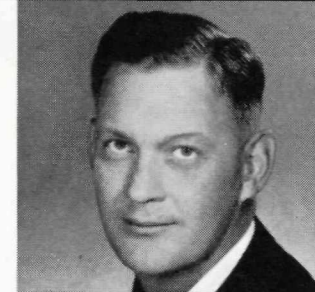
MASSACHUSETTS MUTUAL  
LIFE INSURANCE COMPANY

Springfield, Massachusetts / organized 1851



**Samuel J. Rabin**

Hotel owner and manager . . . served in the Army Air Corps during WWII . . . graduated from U of Miami '49 . . . 6 years experience in advertising, 9 years in hotel business . . . joined Mass Mutual in Miami July '63 . . . sales totaled \$1,863,650 in his first 12 months.



**Jon W. Roggli**

U.S. Air Force 22 years . . . served as pilot with rank of Captain in WWII . . . won DFC . . . received BS degree U. of Maryland '56, plus LLB LaSalle Ext. U . . . joined Mass Mutual at San Rafael, Calif. January '64 . . . first year sales totaled \$1,182,084.



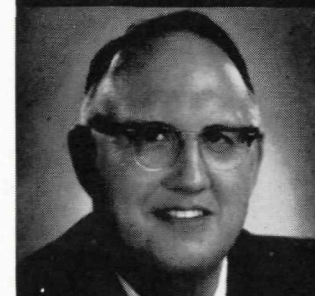
**Howard W. Wing**

Marketing Manager, vinyl fabricating firm . . . 14 years sales and marketing experience . . . WWII Air Force veteran . . . '49 Dartmouth graduate . . . joined Nashua, N. H. agency July '63 . . . first full year's production with Mass Mutual reached \$1,004,575.



**John W. Scarborough**

Joined Mass Mutual October '63 at age 22 before completing undergraduate studies at U. of Puget Sound . . . worked part of a year as a commercial fisherman to help finance college . . . in his first full year with the Seattle agency, his sales totaled \$1,041,000.



**David J. Belknap**

President, Catering firm . . . BS degree Ohio State University '47 . . . after 20 years in family business, joined Columbus agency January '64 . . . sales during his first year totaled \$799,500.

Some of the Georgia Tech alumni in Massachusetts Mutual service:

Stanley A. Elkan, '22, Macon  
William C. Gibson, '39, Atlanta

Donald I. Rosen, C.L.U., '49, Macon  
Henry F. McCamish, Jr., C.L.U., '50, Atlanta  
Norman C. Oien, '61, Atlanta

Bruce McClure, El Paso  
John C. Grant, Sacramento



## Genus Academicus



AN AXIOM hanging over the heads of those intrepid scientists and engineers who seek to un-clam nature in their laboratories runs something like this: "Original, and therefore new, research can only be conducted with new instrumentation." Now the tooling of a laboratory is no simple matter, solved by buying equipment at a kind of scientific supermarket. There certainly are instrument companies specializing in laboratory gear, but they can not fully anticipate new needs and to custom build a job means MONEY. So home-rigger, can-do constructions are the usual answer.

Heaven help the brilliant but mechanically inept researcher. His should be a life spent with chalk and blackboard, paper and pencil.

As one Tech chemistry professor explains: "you can't just be a chemist, you also have to be a machinist, an electrician and a glass blower."

Many months may be spent piecing together the proper instrumentation, and many prayers said that it will operate, and when it is finally complete, that the results it yields will be meaningful. The researcher may consider himself lucky if he occasionally has a professional mechanic or electrician in attendance to help with the pains of labor during construction.

Once the laboratory is *tooled* most of the work is carried out by apprentices in the research trade who are known as *graduate students*, in a system closely resembling that of the medieval ateliers. The students do *original* research for their degrees under the direction of the professor and sometimes, in addition, they do work on the *professor's* projects to receive an assistantship pittance.

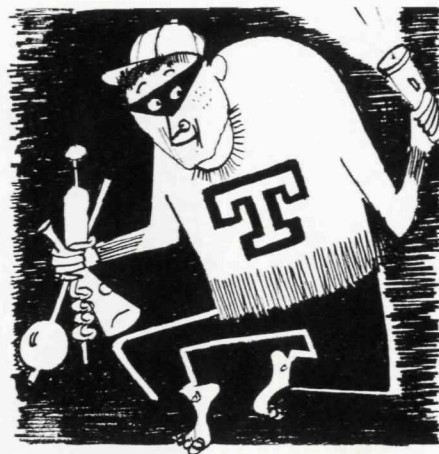
Well, if there is enough grant money, several variations of the original experiments will be begun and the equipment modified to fit the purposes. No research project is ever concluded, or at least hardly ever, without the professor having investigated all possible variations and used the equipment and available students to the fullest. Research means search and search again. There is an awful moment when a new project must be designed, grant support won for it, students convinced they are fascinated with the subject, and—the lab retooled.

There are, of course, larcenous short-cuts to solving some equipment problems. Thievery is not unknown in labland and sometimes offers solutions to certain needs, but it is generally regarded as base and elicits acid reprisals.

The impression should not be given that *all* researchers dread instrumenting because some really do take pride in their mechanical abilities and construct their own apparatus even when commercial equipment is available in order to save a few dollars. Like the biology professor who built his own ten-foot high, twelve-foot long, glass-tubed distillery for treating the gastric juices of a family of invertibrates.

And there are people at Tech who like to tell about a rig that used to flash and light up the dimly-lighted hallway of the basement of the Engineering Experiment Station. The High Temperature Materials Branch used the apparatus to conduct some of its first research on fused silica. The device began with a vibrating mechanism that dropped powder into a pyrex pipe two or three feet tall, at the bottom of which was a funnel through which the powder flowed into an electric arc, and then molten, dripped into a breaker. Behind the electric arc was a bank of radiant heaters, 10 or 15, all glowing red. Rube Goldberg would have loved it.

M.V.L.



## THE INSTITUTE—continued

ization" is what causes the filling material to harden so much more quickly. He has also found that silicates or porcelain cement used in filling and capping teeth in the front of the mouth also harden rapidly when they are exposed to ultrasonics.

The professor says that his research indicates ultrasonics may also be used in a number of non-dental applications in the future. Because the high frequencies speed up the diffusion mechanisms they may be used for comparatively low temperature sintering or fusing of powdered metals like lead, copper, stainless steels, and even tungsten. He has already found that ultrasonics improve the quality and strength of alloys and speed the hardening process.

Generators currently being used are not large enough to economically produce large quantities of sintered metal with ultrasonics, he says, but this is a technical problem that could be overcome "if a definite advantage in metal sintering can be achieved in this way." He believes that it can be, and is continuing to do research on the basic phenomena occurring in materials exposed to ultra high frequencies.

### Chemistry Professor Receives Top Award

EUGENE C. ASHBY, assistant professor of chemistry, is among 91 young scientists in the United States and Canadian universities named this year to receive unrestricted grants for basic research from the Alfred P. Sloan Foundation.

Candidates cannot apply for Sloan Research Fellowships but are nominated by their department chairmen or other scientists familiar with the nominee's research work and potential.

Ashby says he will use the support to do work in several areas including the "determination of mechanisms of Grignard Reactions," and in studying preparations of "unusual complex hydrides."

He will receive \$14,000 and Tech will receive an additional allowance to cover indirect administrative costs. The grant will be effective September 1, 1965.

Ashby was the only recipient in the State of Georgia this year, and one of six from the South.

### Two Other Chemists Get Grants

DR. EDWARD M. BURGESS, assistant professor of chemistry, has received a \$36,385 grant from the National Institute of General Medical Sciences of the National Institutes of Health, U.S. Public Health Services, to study the "Photochemical Production of Ketenes."

The research will be a study of the interaction of light with certain organic compounds as a method of synthesizing other novel compounds which, in turn, may be useful in producing natural products for certain pharmaceutical applications.

Dr. Sidney L. Gordon, Assistant professor of chemistry, has received a \$30,000 grant from the National Science Foundation to conduct research on "Nuclear Magnetic Resonance Relaxation."

In this research the motions of molecules

will be studied by placing liquid or gaseous compounds containing nuclei such as hydrogen and fluorine in a strong magnetic field—28,000 times the Earth's magnetic field. These molecules generate their own microscopic magnetic fields by their complicated motions such as rotation. Detailed information on the molecular motions may be deduced by studying the microscopic magnetic fields.

### Geologists to Study Earth's Crust

GEORGIA TECH geologists and geophysicists will help conduct profile studies of the Earth's crust on and off the eastern seaboard this summer as a result of a \$23,700 grant from the National Science Foundation.

John E. Husted and Ernest A. Kaarsberg of the Chemical Sciences and Materials Division of the Engineering Experiment Station, will lead a contingent of at least four Tech scientists in participating with representatives from the U.S. Geological Survey, the Carnegie Institute, South Western Center for Advanced Studies, and five or more universities in the research entitled "Cooperative Onshore-Offshore Seismic Experiment."

They will conduct studies in the vicinity of Troy, N. C. (New River Inlet), June 21-29, and Manassas, Va., July 5-15. The Earth's crust will be investigated by the standard seismological technique of coordinating low-power explosions and "listening" for "echoes" as the sound waves bounce off different layers of rock.

### Harvard Economist Speaks on Campus

HARVARD ECONOMIST John Kenneth Galbraith spoke at Tech April 6. The author of *The Affluent Society* (1958), *The Liberal Hour* (1960), *The Great Crash* (1955), *A Theory of Price Control* (1952), and *American Capitalism*, has also been an outstanding public servant.

### High Temperature Group Meets at Tech

THE REFRACTORY Composites Working Group, responsible for essentially all of the research and development research being done in the U.S. in the field of high temperature materials and their applications to aerospace and defense needs, met for the first time on the Tech campus, April 12-15. The High Temperature Materials Branch of the Engineering Experiment Station, J. D. Walton, Jr., chief, was the campus host. This was the Tenth Meeting of the Group which is monitored by the Air Force and NASA.

### Chemistry Professor Publishes Book

JOHN R. DYER, associate professor of chemistry, is the author of a book just off the press titled *Applications of Absorption Spectroscopy of Organic Compounds*. Published in both hard and paperback editions, the book is the first in Prentice-Hall's Foundations of Modern Organic Chemistry Series.

According to Dyer, the book is designed to be used primarily by chemistry students on the junior and senior levels in college and teaches them how to interpret data obtained from ultraviolet, infrared and nuclear magnetic resonance spectroscopy.

These three forms of spectroscopy are used routinely by the organic chemist to gain information about the structure of a particular substance.

The book contains 70 pictures as well as tables, charts, and together, it is believed to be the most concise treatments of the spectroscopy yet attempted.

## News of the Alumni by Classes

'05 James Elmo Weeks, EE, died April 6 after a long illness. His home is at 701 E. 50th Street, Savannah, Ga.

'17 William A. Lane, ConE, died April 1, 1964. He was of Gables, Florida.

'20 J. Wright Brown, ME, died April 30, 1964 after a brief illness. He was executive vice president of the Ruff-Brown Company, an Atlanta firm. Milford L. (Jimmy) Wheeler, Jr., died February 26 at his home in Virginia.

'21 Claude A. McGinnis, Jr., died April 1 at his home in Fort Lauderdale, Fla.

William A. Morgan, ChE, died April 7 at his home, 27 Hillside Drive, Delaware. He retired four years ago from DuPont where he was an analyst.

'23 Charles R. Beacham, vice president of the Ford Motor Company, died March 10. He was honored at a testimonial dinner in March by Florida's Ford Motor Company. He will retire from Ford.

'25 Frank J. Dodd, EE, died April 1. He was with General Electric, Rome, Georgia.

'27 F. W. Brock, Miami Springs, Fla., died August 27, 1964.

'28 J. P. Craven has been elected director of The Babcock & Wilcox Company, Barberton, Ohio.

'32 David J. Whitney, EE, died April 1. He was an ultrasonic engineer for the Brew & Company, Inc., Concord, N.H.

'34 McIver Evans has been named chairman of the Board of Owens-Illinois Company, Atlanta, Georgia. Ira A. Lamont, Jr., of Miami, died August 3, 1964.



## Genus Academicus

**A**N AXIOM hanging over the heads of those intrepid scientists and engineers who seek to un-clam nature in their laboratories runs something like this: "Original, and therefore new, research can only be conducted with new instrumentation." Now the tooling of a laboratory is no simple matter, solved by buying equipment at a kind of scientific supermarket. There certainly are instrument companies specializing in laboratory gear, but they can not fully anticipate new needs and to custom build a job means MONEY. So home-rigger, can-do constructions are the usual answer.

Heaven help the brilliant but mechanically inept researcher. His should be a life spent with chalk and blackboard, paper and pencil.

As one Tech chemistry professor explains: "you can't just be a chemist, you also have to be a machinist, an electrician and a glass blower."

Many months may be spent piecing together the proper instrumentation, and many prayers said that it will operate, and when it is finally complete, that the results it yields will be meaningful. The researcher may consider himself lucky if he occasionally has a professional mechanic or electrician in attendance to help with the pains of labor during construction.

Once the laboratory is *tooled* most of the work is carried out by apprentices in the research trade who are known as *graduate students*, in a system closely resembling that of the medieval ateliers. The students do *original* research for their degrees under the direction of the professor and sometimes, in addition, they do work on the *professor's* projects to receive an assistantship pittance.

Well, if there is enough grant money, several variations of the original experiments will be begun and the equipment modified to fit the purposes. No research project is ever concluded, or at least hardly ever, without the professor having investigated all possible variations and used the equipment and available students to the fullest. Research means search and search again. There is an awful moment when a new project must be designed, grant support won for it, students convinced they are fascinated with the subject, and—the lab retooled.

There are, of course, larcenous short-cuts to solving some equipment problems. Thievery is not unknown in labland and sometimes offers solutions to certain needs, but it is generally regarded as base and elicits acid reprisals.

The impression should not be given that *all* researchers dread instrumenting because some really do take pride in their mechanical abilities and construct their own apparatus even when commercial equipment is available in order to save a few dollars. Like the biology professor who built his own ten-foot high, twelve-foot long, glass-tubed distillery for treating the gastric juices of a family of invertebrates.

And there are people at Tech who like to tell about a rig that used to flash and light up the dimly-lighted hallway of the basement of the Engineering Experiment Station. The High Temperature Materials Branch used the apparatus to conduct some of its first research on fused silica. The device began with a vibrating mechanism that dropped powder into a pyrex pipe two or three feet tall, at the bottom of which was a funnel through which the powder flowed into an electric arc, and then molten, dripped into a breaker. Behind the electric arc was a bank of radiant heaters, 10 or 15, all glowing red. Rube Goldberg would have loved it.

M.V.L.



## THE INSTITUTE—continued

zation" is what causes the filling material to harden so much more quickly. He has also found that silicates or porcelain cement used in filling and capping teeth in the front of the mouth also harden rapidly when they are exposed to ultrasonics.

The professor says that his research indicates ultrasonics may also be used in a number of non-dental applications in the future. Because the high frequencies speed up the diffusion mechanisms they may be used for comparatively low temperature sintering or fusing of powdered metals like lead, copper, stainless steels, and even tungsten. He has already found that ultrasonics improve the quality and strength of alloys and speed the hardening process.

Generators currently being used are not large enough to economically produce large quantities of sintered metal with ultrasonics, he says, but this is a technical problem that could be overcome "if a definite advantage in metal sintering can be achieved in this way." He believes that it can be, and is continuing to do research on the basic phenomena occurring in materials exposed to ultra high frequencies.

### Chemistry Professor Receives Top Award

EUGENE C. ASHBY, assistant professor of chemistry, is among 91 young scientists in the United States and Canadian universities named this year to receive unrestricted grants for basic research from the Alfred P. Sloan Foundation.

Candidates cannot apply for Sloan Research Fellowships but are nominated by their department chairmen or other scientists familiar with the nominee's research work and potential.

Ashby says he will use the support to do work in several areas including the "determination of mechanisms of Grignard Reactions," and in studying preparations of "unusual complex hydrides."

He will receive \$14,000 and Tech will receive an additional allowance to cover indirect administrative costs. The grant will be effective September 1, 1965.

Ashby was the only recipient in the State of Georgia this year, and one of six from the South.

### Two Other Chemists Get Grants

DR. EDWARD M. BURGESS, assistant professor of chemistry, has received a \$36,385 grant from the National Institute of General Medical Sciences of the National Institutes of Health, U.S. Public Health Services, to study the "Photochemical Production of Ketenes."

The research will be a study of the interaction of light with certain organic compounds as a method of synthesizing other novel compounds which, in turn, may be useful in producing natural products for certain pharmaceutical applications.

Dr. Sidney L. Gordon, Assistant professor of chemistry, has received a \$30,000 grant from the National Science Foundation to conduct research on "Nuclear Magnetic Resonance Relaxation."

In this research the motions of molecules

will be studied by placing liquid or gaseous compounds containing nuclei such as hydrogen and fluorine in a strong magnetic field—28,000 times the Earth's magnetic field. These molecules generate their own microscopic magnetic fields by their complicated motions such as rotation. Detailed information on the molecular motions may be deduced by studying the microscopic magnetic fields.

### Geologists to Study Earth's Crust

GEORGIA TECH geologists and geophysicists will help conduct profile studies of the Earth's crust on and off the eastern seaboard this summer as a result of a \$23,700 grant from the National Science Foundation.

John E. Husted and Ernest A. Kaarsberg of the Chemical Sciences and Materials Division of the Engineering Experiment Station, will lead a contingent of at least four Tech scientists in participating with representatives from the U.S. Geological Survey, the Carnegie Institute, South Western Center for Advanced Studies, and five or more universities in the research entitled "Cooperative Onshore-Offshore Seismic Experiment."

They will conduct studies in the vicinity of Troy, N. C. (New River Inlet), June 21-29, and Manassas, Va., July 5-15. The Earth's crust will be investigated by the standard seismological technique of coordinating low-power explosions and "listening" for "echoes" as the sound waves bounce off different layers of rock.

### Harvard Economist Speaks on Campus

HARVARD ECONOMIST John Kenneth Galbraith spoke at Tech April 6. The author of *The Affluent Society* (1958), *The Liberal Hour* (1960), *The Great Crash* (1955), *A Theory of Price Control* (1952), and *American Capitalism*, has also been an outstanding public servant.

### High Temperature Group Meets at Tech

THE REFRACTORY Composites Working Group, responsible for essentially all of the research and development research being done in the U.S. in the field of high temperature materials and their applications to aerospace and defense needs, met for the first time on the Tech campus, April 12-15. The High Temperature Materials Branch of the Engineering Experiment Station, J. D. Walton, Jr., chief, was the campus host. This was the Tenth Meeting of the Group which is monitored by the Air Force and NASA.

### Chemistry Professor Publishes Book

JOHN R. DYER, associate professor of chemistry, is the author of a book just off the press titled *Applications of Absorption Spectroscopy of Organic Compounds*. Published in both hard and paperback editions, the book is the first in Prentice-Hall's Foundations of Modern Organic Chemistry Series.

According to Dyer, the book is designed to be used primarily by chemistry students on the junior and senior levels in college and teaches them how to interpret data obtained from ultraviolet, infrared and nuclear magnetic resonance spectroscopy.

These three forms of spectroscopy are now used routinely by the organic chemist to gain information about the structural nature of a particular substance.

The book contains 70 pictures of spectra, as well as tables, charts, and figures. Altogether, it is believed to be one of the most concise treatments of the subject of spectroscopy yet attempted.

## News of the Alumni by Classes

'05 James Elmo Weeks, EE, died March 6 after a long illness. His widow lives at 701 E. 50th Street, Savannah, Georgia.

'17 William A. Lane, Com, of Coral Gables, Florida, died December 8, 1964.

'20 J. Wright Brown, ME, died September 30, 1964 after a brief illness. He was executive vice president of the Woodruff-Brown Company, an Atlanta realty firm. Milford L. (Jimmy) Wheeler, CE, died February 26 at his home in Bedford, Virginia.

'21 Claude A. McGinnis, Jr., died March 1 at his home in Fort Lauderdale, Florida.

William A. Morgan, ChE, died December 7 at his home, 27 Hillside Drive, Claymont, Delaware. He retired four years ago from DuPont where he was an analytical chemist.

'23 Charles R. Beacham, vice president of the Ford Motor Company, was honored at a testimonial dinner in Tampa in March by Florida's Ford Motor Company. He will retire from Ford in June.

'25 Frank J. Dodd, EE, died January 6. He was with General Electric in Rome, Georgia.

'27 F. W. Brock, Miami Springs, Florida, died August 27, 1964.

'28 J. P. Craven has been elected a director of The Babcock & Wilcox Company, Barberton, Ohio.

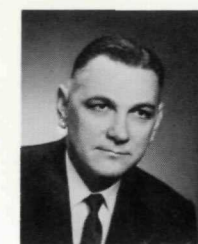
'32 David J. Whitney, EE, is now chief ultrasonic engineer for Richard B. Brew & Company, Inc., Concord, New Hampshire.

'34 McIver Evans has been named Chairman of the Board of the Draper Owens Company, Atlanta, Georgia.

Ira A. Lamont, Jr., of Miami, Florida, died August 3, 1964.

## Faces in the News

Kyle H. Turner, '33, formerly assistant treasurer and assistant secretary of Atlanta Gas Light Company, has been elected treasurer. A native of Alabama, Turner joined the Company's accounting department in 1934.



Joseph H. Anderer, '48, has been appointed Manager-Fabric Merchandising of Celanese Fibers Marketing Company. Anderer received his B.S. in mechanical engineering in 1947 and a B.S. in industrial engineering the following year.



W. A. Phillips, '48, has been appointed technical director of Kaiser Chemicals. He is responsible for the Division's growing research activities in San Leandro, California and technical service laboratories in Illinois, Ohio, and Louisiana.



Thomas A. Comen, '52, has been named manager of Reynolds Metals Company's new aluminum can manufacturing plant now under construction in Tampa. He was formerly staff production engineer in the can division at Reynolds' headquarters - Richmond.



Claybourn B. Rhinehart, '52, has been appointed manager of automotive and aerospace product sales for the International B. F. Goodrich Company, Akron. The past year, he was manager of the company's European aerospace offices in Voorburg, Holland.



Terrell Sovey, '52, has been made a Vice President of Deering Milliken, Inc., Spartanburg, S.C., in charge of financial planning. He is also responsible for the electronic data processing operations of the company there.





## Faces in the News



**Dr. James Wei, '52**, has been promoted to Senior Research Associate with Socony Mobil Oil Company's Research Department at the Central Research Division Laboratory in Hopewell Township, N.J. Wei lives with his family in Princeton.



**Henry H. Sineath, '56**, previously manager of research and development, becomes technical director of Film Operations of FMC Corporation's American Viscose Div., Philadelphia. Sineath, at one time, was a special research engineer at Tech.



**Jess M. Carroll, '57**, has been named superintendent of Republic Steel Corporation's Union Drawn Div. plant in Hartford, Conn. He has been acting superintendent of the plant since November. Carroll resides with his family in Vernon, Conn.



**N. H. Malone, Jr., '58**, has been transferred from Eastman Chemical Products' New York office to the Atlanta Plastics Division office where he will be in charge. After a 2-year training program, Mr. Malone worked in the N.Y. office 5 years.



**David L. Absher, '60**, has been appointed to the position of Production Manager with The Boardman Company, P.O. Box 1152, Oklahoma City, Oklahoma. Previously he was with Armco Steel Corporation for eleven years.



**W. Wesley Devoto, '61**, has been elected Assistant to the President of Georgia Life and Health Insurance Company, Atlanta. Before his association with Georgia Life, he served as Vice President of Clairmont Industries and was also connected with Ford Motor Company.

## NEWS BY CLASSES—cont'd

**'35** **David D. Sanford** died of a heart attack February 19. His widow lives at 123 Oldbury Drive, Wilmington, Delaware.

**'37** **Charles A. Stokes**, formerly of Atlanta, died February 24 in Clearwater, Florida.

**'38** **Lt. Col. Bernard L. Mathews, Jr.**, USA, ME, died February 17 in Tokyo.

**'39** **C. H. Williams** was elected to the grade of Fellow in IEEE. He is vice president and manager of engineering with the Hawaiian Electric Company, Honolulu, Hawaii.

**'40** **Joe H. Emery, Jr.**, IM, is manager of Texas Instruments Asia, Ltd. in Kobe, Hyogo, Japan.

**'41** **Chester C. Sconyers** died February 10, 1965. He was a manufacturers representative for Perry Filter Corporation. His widow lives at 10817 Damon Drive, Dallas, Texas.

**'42** **Fred T. Bridges**, IM, has been promoted to manager with Reynolds Metals Company.

**Allan B. Johnson**, Cere, is now manager of property and casualty sales for Safeco Insurance, Seattle, Washington. He was formerly manager of the Southwest Division.

**'46** **George B. Hills, Jr.**, has been appointed assistant general manager of the corrugated container division of Continental Can Company, New York, New York.

Married: **Preston E. Seligman** to Miss Maxine Stone. The wedding took place May 2 in Jacksonville, Florida.

**'48** **Buck Mickel**, CE, has been elected president of Daniel Construction Company. March 1 he was made a director of the Seaboard Air Line Railroad. His mailing address is P.O. Box 1388, Greenville, South Carolina.

**'49** **Nelson W. Hocking, Jr.**, EE, has been named assistant general manager of the Steubenville, Ohio plant of the Wheeling Steel Corporation.

**Harry V. Lindsey**, USAF, IM, was promoted to major last December. He is currently a management engineer at Albrook Air Base, Canal Zone.

**'50** **Paul Aronin**, IE, CPA, has opened an office at 716 Atlanta Federal Savings Building, Atlanta, Georgia.

**Maj. Ray B. Coffman, Sr.**, USAF, IM, is a member of the 30th Weather Squadron which has received the U.S. Air Force Outstanding Unit Award for meritorious service in Southeast Asia.

**Raymond G. Moore**, ME, has been named manager of The B. F. Goodrich Company's Dallas, Texas District.

**'51** **David H. Brady**, CE, is a partner in the newly organized consulting engineering firm of Adair, Brady & Fische, Inc. He is vice president of the firm, which is located at 421 South H Street, Lake Worth, Florida.

**'54** **W. Edward Gossage**, IM, has been promoted to manager of production and industrial relations for the C. Lee Cook Division, Dover Corporation. He lives at 3023 LeMan Drive, Louisville, Kentucky.

**Marvin L. Hardy**, CE, recently attended a course in Chicago on soil-cement slope protection for earthfill reservoirs and dams. He is general field engineer for the Portland Cement Association's Georgia-South Carolina District.

Born to: **Mr. and Mrs. G. Alfred Teasley**, ME, a son, Glen Alfred, March 5. They live at 1303 Fairlane Drive, Bettendorf, Iowa. Mr. Teasley is with the Aluminum Company of America.

**'55** Born to: **Mr. and Mrs. James Chamblee Meredith**, ChE, a daughter, Anne Sylvia, March 17. They live at 312 Hillsmere Drive, Annapolis, Maryland.

**Robert L. Porter**, Jr., IM, has been promoted from sales representative to account representative with the Data Processing Division of IBM. He lives with his wife and two daughters at 6550 Haley Drive, Columbia, South Carolina.

**W. Ray Sarrett**, general contractor, has opened an office at 180 Mills Street, N.W., Atlanta, Georgia.

**Captain William Van Houten, III**, USA, Tex, has completed the ordnance officer career course at the Army Ordnance Center, Aberdeen Proving Ground, Maryland.

**'56** **Donald T. Browne**, IE, is with the Insurance Department of Tharpe & Brooks, Inc., 728 West Peachtree, Atlanta, Georgia.

**E. Lawrence Morton, Jr.**, ChE, received his PhD in Chemical Engineering from LSU. He is now Assistant Director of the Computer Research Center at LSU at Baton Rouge, Louisiana and also Assistant Professor of Mechanical Engineering. Dr. Morton is married to the former Marilyn Griffin.

**Capt. Hugh M. Saint**, USAF, AE, is now at Shaw AFB, South Carolina after a tour of duty in England.

Born to: **Mr. and Mrs. Ted R. Wirtz**, IM, a daughter, Wendy Lee, January 19. They live at 7151 Dearwester Drive, Cincinnati, Ohio.

**'57** **Dennis L. Harlow**, IE, has joined the Trane Company's Miami, Florida sales office as a full line salesman.

Born to: **Dr. and Mrs. Frank W. Sharbrough III**, Math, a daughter, Carolyn



Bill Lowery—talent agent in a recording studio—discovered with New England Life

## "How I succeeded in my firm"

Bob Evensen was 40 when he joined us in 1963. Although he had no experience, he had never so. One year after he was hired of life insurance, and had b England Life's Hall of Fame plain in a paragraph how h "As soon as I finished r England Life (which was e quota of \$100,000 a month. l of 15 interviews a week with Bob says. "Direct mail h source of leads. Selling life business in the world, and c

NEW ENGLAND MUTUAL LIFE INSURANCE CO.

THESE GEORGIA

Carl S. I



## Faces in the News

### NEWS BY CLASSES—cont'd



**Dr. James Wei, '52**, has been promoted to Senior Research Associate with Socony Mobil Oil Company's Research Department at the Central Research Division Laboratory in Hopewell Township, N.J. Wei lives with his family in Princeton.



**Henry H. Sineath, '56**, previously manager of research and development, becomes technical director of Film Operations of FMC Corporation's American Viscose Div., Philadelphia. Sineath, at one time, was a special research engineer at Tech.



**Jess M. Carroll, '57**, has been named superintendent of Republic Steel Corporation's Union Drawn Div. plant in Hartford, Conn. He has been acting superintendent of the plant since November. Carroll resides with his family in Vernon, Conn.



**N. H. Malone, Jr., '58**, has been transferred from Eastman Chemical Products' New York office to the Atlanta Plastics Division office where he will be in charge. After a 2-year training program, Mr. Malone worked in the N.Y. office 5 years.



**David L. Absher, '60**, has been appointed to the position of Production Manager with The Boardman Company, P.O. Box 1152, Oklahoma City, Oklahoma. Previously he was with Armco Steel Corporation for eleven years.



**W. Wesley Devoto, '61**, has been elected Assistant to the President of Georgia Life and Health Insurance Company, Atlanta. Before his association with Georgia Life, he served as Vice President of Clairmont Industries and was also connected with Ford Motor Company.

**'35** **David D. Sanford** died of a heart attack February 19. His widow lives at 123 Oldbury Drive, Wilmington, Delaware.

**'37** **Charles A. Stokes**, formerly of Atlanta, died February 24 in Clearwater, Florida.

**'38** **Lt. Col. Bernard L. Mathews, Jr.**, USA, ME, died February 17 in Tokyo.

**'39** **C. H. Williams** was elected to the grade of Fellow in IEEE. He is vice president and manager of engineering with the Hawaiian Electric Company, Honolulu, Hawaii.

**'40** **Joe H. Emery, Jr.**, IM, is manager of Texas Instruments Asia, Ltd. in Kobe, Hyogo, Japan.

**'41** **Chester C. Sconyers** died February 10, 1965. He was a manufacturers representative for Perry Filter Corporation. His widow lives at 10817 Damon Drive, Dallas, Texas.

**'42** **Fred T. Bridges**, IM, has been promoted to manager with Reynolds Metals Company.

**Allan B. Johnson**, Cere, is now manager of property and casualty sales for Safeco Insurance, Seattle, Washington. He was formerly manager of the Southwest Division.

**'46** **George B. Hills, Jr.**, has been appointed assistant general manager of the corrugated container division of Continental Can Company, New York, New York.

Married: **Preston E. Seligman** to Miss Maxine Stone. The wedding took place May 2 in Jacksonville, Florida.

**'48** **Buck Mickel**, CE, has been elected president of Daniel Construction Company. March 1 he was made a director of the Seaboard Air Line Railroad. His mailing address is P.O. Box 1388, Greenville, South Carolina.

**'49** **Nelson W. Hocking, Jr.**, EE, has been named assistant general manager of the Steubenville, Ohio plant of the Wheeling Steel Corporation.

**Harry V. Lindsey**, USAF, IM, was promoted to major last December. He is currently a management engineer at Albrook Air Base, Canal Zone.

**'50** **Paul Aronin**, IE, CPA, has opened an office at 716 Atlanta Federal Savings Building, Atlanta, Georgia.

**Maj. Ray B. Coffman, Sr.**, USAF, IM, is a member of the 30th Weather Squadron which has received the U.S. Air Force Outstanding Unit Award for meritorious service in Southeast Asia.

**Raymond G. Moore**, ME, has been named manager of The B. F. Goodrich Company's Dallas, Texas District.

**'51** **David H. Brady**, CE, is a partner in the newly organized consulting engineering firm of Adair, Brady & Fische, Inc. He is vice president of the firm, which is located at 421 South H Street, Lake Worth, Florida.

**'54** **W. Edward Gossage**, IM, has been promoted to manager of production and industrial relations for the C. Lee Cook Division, Dover Corporation. He lives at 3023 LeMan Drive, Louisville, Kentucky.

**Marvin L. Hardy**, CE, recently attended a course in Chicago on soil-cement slope protection for earthfill reservoirs and dams. He is general field engineer for the Portland Cement Association's Georgia-South Carolina District.

Born to: **Mr. and Mrs. G. Alfred Teasley**, ME, a son, Glen Alfred, March 5. They live at 1303 Fairlane Drive, Bettendorf, Iowa. Mr. Teasley is with the Aluminum Company of America.

**'55** Born to: **Mr. and Mrs. James Chamblee Meredith**, ChE, a daughter, Anne Sylvia, March 17. They live at 312 Hillsmere Drive, Annapolis, Maryland.

**Robert L. Porter, Jr.**, IM, has been promoted from sales representative to account representative with the Data Processing Division of IBM. He lives with his wife and two daughters at 6550 Haley Drive, Columbia, South Carolina.

**W. Ray Sarrett**, general contractor, has opened an office at 180 Mills Street, N.W., Atlanta, Georgia.

**Captain William Van Houten, III**, USA, Tex, has completed the ordnance officer career course at the Army Ordnance Center, Aberdeen Proving Ground, Maryland.

**'56** **Donald T. Browne**, IE, is with the Insurance Department of Tharpe & Brooks, Inc., 728 West Peachtree, Atlanta, Georgia.

**E. Lawrence Morton, Jr.**, ChE, received his PhD in Chemical Engineering from LSU. He is now Assistant Director of the Computer Research Center at LSU at Baton Rouge, Louisiana and also Assistant Professor of Mechanical Engineering. Dr. Morton is married to the former Marilyn Griffin.

**Capt. Hugh M. Saint**, USAF, AE, is now at Shaw AFB, South Carolina after a tour of duty in England.

Born to: **Mr. and Mrs. Ted R. Wirtz**, IM, a daughter, Wendy Lee, January 19. They live at 7151 Dearwester Drive, Cincinnati, Ohio.

**'57** **Dennis L. Harlow**, IE, has joined the Trane Company's Miami, Florida sales office as a full line salesman.

Born to: **Dr. and Mrs. Frank W. Sharbrough III**, Math, a daughter, Carolyn



Bill Lowery—talent agent, music publisher and operator of a recording studio—discusses his new insurance program with New England Life representative Robert Evensen.

## "How I sold \$1,017,000 of Life Insurance in my first year with New England Life."

Bob Evensen was 40 when he applied for a job with us in 1963. Although he had 20 years of sales experience, he had never sold life insurance before. One year after he was hired, Bob had sold \$1,017,000 of life insurance, and had become a member of New England Life's Hall of Fame. We asked Bob to explain in a paragraph how he did it.

"As soon as I finished my basic training at New England Life (which was excellent), I set my own quota of \$100,000 a month. I tried to have a minimum of 15 interviews a week with at least 2 applications," Bob says. "Direct mail has proven a very good source of leads. Selling life insurance is the greatest business in the world, and coming with New England

Life was one of the best decisions I've ever made."

If you would like to investigate a career with New England Life, there's an easy first step to take. Send for our free Personality-Aptitude Analyzer. It's a simple exercise you can take in about ten minutes. Then return it to us and we'll mail you the results. (This is a bona fide analysis and many men find they cannot qualify.) It could be well worth ten minutes of your time.

Write: Vice President George Joseph, Dept. AL2, 501 Boylston St., Boston, Mass. 02117. We'd like to hear from you.

## NEW ENGLAND LIFE

NEW ENGLAND MUTUAL LIFE INSURANCE COMPANY: ALL FORMS OF INDIVIDUAL AND GROUP LIFE INSURANCE, ANNUITIES AND PENSIONS, GROUP HEALTH COVERAGES.

### THESE GEORGIA TECH ALUMNI ARE NEW ENGLAND LIFE REPRESENTATIVES:

**G. Nolan Beardon, '29, Los Angeles.**

**Carl S. Ingle, CLU, '33, Jacksonville • Joe A. Sowell, '47, Montgomery.**



## NEWS BY CLASSES—cont'd

Chambless, March 17. They live at 1450 University Terrace, Ann Arbor, Michigan.

*William B. Wagner*, ME, is manager, field sales, with John Chatillon and Sons, 85-93 Cliff Street, New York, New York.

**'58** Engaged: *Richard Mann Harper* to Miss Sara Pockel. The wedding will take place in June. Mr. Harper is with the C&S Bank, Atlanta, Georgia.

*Charles C. Rogers, Jr.*, IE, received his Master of Engineering Administration degree in February from George Washington University, Washington, D. C.

Born to: *Mr. and Mrs. Benjamin D. Smith*, a son, John Patterson, March 14.

**'59** Born to: *Mr. and Mrs. Fred L. Bergert*, ChE, a daughter, Gwynne Adara, February 20. Mr. Bergert is in law school at the University of Florida. They live at 1218 N.W. 6th Street, Gainesville, Florida.

*Kenneth M. Carter*, IM, has been transferred by Deering Milliken from Otteray Mill to the Fiber Utilization Department of the Deering Milliken Service Corporation. He lives at 200 Spruce Street, Union, South Carolina.

Engaged: *Charles R. Dressler, Jr.*, ME, to Miss Jane Ann Orcutt. The wedding will take place in August. Mr. Dressler is with the U.S. Naval Ordnance Laboratory. His address is 11340 Evans Trail, Apartment 101, Beltsville, Maryland.

*William B. Mevers*, CE, has been elected president of the Florida Pipe and Manufacturing Company, Orlando, Florida. He was formerly with Kaiser Aluminum and Chemical Corporation.

Engaged: *Charles Joseph Siffri*, CE, to Miss Shelia Woody. The wedding will take place this summer. Mr. Siffri is a partner in Siffri-Knowlton Engineers, Atlanta, Georgia.

Born to: *Mr. and Mrs. Troy L. Puckett*, IE, a son, Judson Reid, March 3. Troy is with DuPont Construction Division. They live at 4931 Hopkins Road, Meadowbrook Estates, Richmond, Virginia.

Married: *Bayley R. Walker*, IM, to Miss Martha Frierson. The wedding took place April 24. Bayley is with the Trust Company of Georgia, Atlanta, Georgia.

**'60** Married: *Arthur O. Gay*, IM, to Miss Ramona Cantrell April 4.

Born to: *Mr. and Mrs. Frank H. Maier, Jr.*, IM, twin sons, Frank III and Christopher, March 2.

*David M. McKenney*, IE, has joined the Trane Company's Atlanta, Georgia sales office as a full line sales engineer.

Born to: *Mr. and Mrs. Robert S. Runkle*, CE, a daughter, Brynn Allison, March 28. Mr. Runkle is with the National Cancer Institute stationed at the National Institute of Health. They live at 5915 Beech Avenue, Bethesda, Maryland.

*Frank R. Speer*, IM, has been named Man of the Year for his outstanding service to his policyholders as well as his under-

writing achievements. He is with the Donald E. Wall Agency of Penn Mutual, 986 West Peachtree Street, Atlanta, Georgia.

Born to: *Mr. and Mrs. James H. Thompson*, IM, a daughter, Kay Elizabeth, November 1, 1964. Mr. Thompson is employed by Transport Insurance and has recently been promoted to Claims Manager of the North Carolina District. They live at 507 Alpine Road, Winston-Salem, North Carolina.

**'61** *James A. Rosser*, CE, has joined Shell Pipe Line Corporation as a hydraulic engineer. He lives with his wife and two sons at 1601 Midkiff Road, Apartment 104, Midland, Texas.

Engaged: *Lt. Jake William Stewart*, USN, Phys, to Miss Carolyn Pope. The wedding will take place July 10. Lt. Stewart is serving aboard the U.S.S. Harold J. Ellison in Norfolk, Va.

**'62** *Glenn P. Elliott, Jr.*, ChE, has completed two years of active duty with the U.S. Army and is now doing aerospace engineering at NASA's Lewis Research Center. His address is 6030-A Glenway Drive, Cleveland, Ohio.

*William E. Evans* is now assistant test engineer at Plant Mitchell for the Georgia Power Company. He lives at 113 8th Avenue, Albany, Georgia.

*Robert D. Hayes, Jr.* has been promoted to senior territorial salesman with Johns-Manville in the Cincinnati, Ohio district. His mailing address is P.O. Box 787, 2213 Cleveland Avenue, Portsmouth, Ohio.

Born to: *Lt and Mrs. Cris Jones*, USMC, IM, a daughter, Amy Holden, February 26. Lt. Jones is serving with the Marines in Japan.

Born to: *Mr. and Mrs. Richard Ouelette*, a daughter, Elizabeth Ann, December 8, 1964. Mr. Ouelette is a staff member of the Division of Sponsored Research at MIT. They live at 1105 Lexington Street, Waltham, Massachusetts.

Born to: *Mr. and Mrs. E. Eugene Stewart*, TE, a son, Richard Ashley, February 16. Mr. Stewart is a sales and service representative for the Filter Products Sales Division of Eastman Chemical Products, Inc. They live at 2760 Circle View, Kingsport, Tennessee.

*William A. Thomas*, CE, a design hydraulic engineer, Little Rock District of the U.S. Army Corps of Engineers, has been named one of two persons in a 5 state southwestern division area for a year's graduate study in the Corps of Engineers program providing advanced study for selected engineers. He will attend MIT this coming fall.

*Carlton B. Waskey*, IM, has completed his tour of duty with the U.S. Army and is now with the Fuel Oil and Equipment Company. He lives at 723 Suburban Avenue, S.W., Roanoke, Virginia.

**'63** Married: *Lt. William F. Hoadley*, USAF, IM, to Miss Carol E. Jones of Hopewell, New Jersey, August 8. Lt. Hoadley is a management engineer assigned

to Mather AFB, California. They live at 116 Cochran Drive, Sacramento, California.

*Lt. Edwin B. Jelks, III*, IM, a KC-135 Stratotanker navigator, is now stationed at Griffiss AFB, New York.

*Lt. Maurice J. Maguire, Jr.*, USAF, is assigned to Headquarters, Military Air Transport Service, Scott AFB, Illinois. He is a management engineering officer.

Born to: *Mr. and Mrs. James L. Pack*, ME, a daughter, Mitzi Gayle, February 5. Mr. Pack is a project engineer with Walverine Tube. They live at 1205 Elizabeth Avenue, S.E., Decatur, Alabama.

*Donald R. Parker*, IE, has completed two years active military service and is now an industrial engineer with DuPont, Camden, South Carolina.

*Thomas S. Roberts*, ChE, has been promoted to senior dye chemist in dyeing research at Chemstrand, Decatur, Alabama.

Engaged: *Lyman Braddy Smith*, IM, to Miss Neva Climer. The wedding will take place in June. Mr. Smith is with Lockheed in Marietta, Georgia.

*W. Franklin Smith*, ChE, has joined the staff of The Glidden Company, Organic Chemicals Division at Jacksonville, Florida.

**'64** Married: *Frank P. Berman*, IE, to *Susan Starr*, CerE, March 28. Both Mr. and Mrs. Berman work in the Engineering Department of Arnold Engineering. They live at 66 North Virginia Court, Englewood Cliffs, New Jersey.

*Richard M. Crum*, IE, has joined the Trane Company's Mobile, Alabama sales office as a general line sales engineer.

*F. William Hackmeyer*, IE, has joined the Trane Company's Memphis, Tennessee sales office as a dealer specialist.

*Richard W. Rogers*, IV, ChE, is now a research and development engineer with the DuPont Jackson Laboratory. He lives at 260 Elkton Road, Apartment B-6, Newark, Delaware.

Married: *Allen Culver Sickel*, USAF, IE, to Miss Cornelia Patrick, February 13. Lt. Sickel is stationed at Laughlin AFB, Del Rio, Texas.

Engaged: *Lt. Chester E. Sparks*, USA, to Miss Renee Weiss. The wedding will take place this fall. Lt. Sparks is stationed in Karlsruhe, Germany.

*Lt. Curtis P. Stinespring, III*, USA, has completed the signal officer orientation course at the Army Southeastern Signal School, Fort Gordon, Georgia.

*Baynard B. von Herrmann*, IE, has joined the Trane Company's Atlanta sales office as a dealer specialist.

*John A. Whiteside*, USAF, AE, has been commissioned a second lieutenant. As a missile officer he was assigned to and was present for the November activation of the 321st Strategic Missile Wing at Grand Forks AFB, North Dakota. He lives at 116-A Idaho Drive, Grand Forks, AFB, North Dakota.

*Lt. Robert C. Williams*, USA, has completed the signal officer orientation course at the Army Southeastern Signal School, Fort Gordon, Georgia.

## VOTE FOR YOUR 1965-66 OFFICERS, NO

**H**EADING THE list of candidates nominated to lead the Georgia Tech National Alumni Association during the 1965-66 year is Madison F. Cole, '41, of Newnan. The nominating committee (R. A. Siegel, '36, chairman; Paul Dorn, '31; and Randolph Whitfield, '32) named the following men to run on the slate with presidential-nominee Cole: Alvin M. Ferst, '43, vice president; Howard Ector, '40, vice president-at-large; and L. Lawrence Gellerstedt, '45, treasurer.

The committee also named the following alumni for three-year terms as trustees: Talbert E. Smith, Jr., '55; George Morris, '53; George Felker, '36; and Dakin Ferris, '50.

### The Board Election

Under Article VIII of the amended By-laws, four trustees shall be elected by the members of the Association each year for three year terms. In addition, the immediate past president (Daniel A. McKeever, '32, in this case) and six alumni named by the incumbent president also will be members of the new Board. The other 12 members of the Board include the Association officers and carry-over trustees with one or two years to serve on their elected terms.

### The Nominees

**For President**—Madison F. Cole, a life underwriter with the Mutual Life Insurance Company of New York, has served as vice president-at-large for the Association for the past two years. He is a resident of Newnan, Georgia, and is a leader in civic and church activities there. He has served as head of the personnel and finance committee of the Alumni Association.

**For Vice President**—Alvin M. Ferst, Jr., a vice president of Rich's, is currently vice president of the Association. A top civic leader in Atlanta, Ferst headed up the Association Board's important research committee during the 1963-64 year and the fund committee this past year.

**For Vice President-at-Large**—Howard Ector—formerly executive secretary of both the Alumni Association and the Georgia Tech Foundation and business manager of the Athletic Association—is currently a trust officer with the Trust Company of Georgia and one of the state's best-known business and civic leaders. He was recently named to the Sports Illustrated Silver Anniversary All-America team for his post-college accomplishments.

**For Treasurer**—Lawrence L. Geller, Jr., is president of the Beers Construction Company of Atlanta. Gellerstedt, student and student leader at Tech, has been a member of the Board of Trustees for two years and treasurer for the year.

**For Trustee**—Talbert E. Smith, Jr. served the Board of Trustees as a representative for the past year. He is a partner in the Atlanta plant equipment firm of Burford, E. Smith. A member of ASME, Smith is an industrial engineering graduate.

**For Trustee**—George A. Morris, Jr., 1952 all-America center, is current assistant general sales manager of the Crown Cola Company, Columbus, Georgia. One of Columbus' outstanding business and civic leaders, he is past president of the Georgia Tech Club in the city.

**For Trustee**—George W. Felker, president and treasurer of the Vicksburg Cotton Mill Company of Monroe, Georgia. A former vice president of the Textile Corporation of New York, Felker returned to Monroe in 1963 after 27 years of experience with some of the country's leading textile firms.

**For Trustee**—Dakin B. Ferris is the manager of the Atlanta office and vice president of Merrill Lynch, Fenner & Smith, Inc. He has been with the firm since graduation and has an account executive in the Mobile office. He was manager of the Pensacola office in 1960, manager of the Atlanta office in 1961.

### How to Vote

All active members of the Association who desire to confirm the above nominations for officers and elected trustees should vote.

#### BALLOTT FOR NATIONAL ALUMNI

☐ My check in box indicates approval of candidates:

FOR PRESIDENT: \_\_\_\_\_

FOR VICE PRESIDENT: \_\_\_\_\_

FOR VICE PRESIDENT (at large): \_\_\_\_\_

FOR TREASURER: \_\_\_\_\_

FOR TRUSTEES (vote for four): \_\_\_\_\_

Signed: \_\_\_\_\_

Mail before June 20 to Georgia Tech.



## NEWS BY CLASSES—cont'd

mbless, March 17. They live at 1450 University Terrace, Ann Arbor, Michigan. William B. Wagner, ME, is manager, field sales, with John Chatillon and Sons, 85-93 1st Street, New York, New York.

Engaged: Richard Mann Harper to Miss Sara Pockel. The wedding will take place in June. Mr. Harper is with the Bank, Atlanta, Georgia.

Charles C. Rogers, Jr., IE, received his Master of Engineering Administration degree in February from George Washington University, Washington, D. C.

Born to: Mr. and Mrs. Benjamin D. Smith, a son, John Patterson, March 14.

Born to: Mr. and Mrs. Fred L. Bergert, ChE, a daughter, Gwynne Laura, February 20. Mr. Bergert is in law school at the University of Florida. They live at 1218 N.W. 6th Street, Gainesville, Florida.

Kenneth M. Carter, IM, has been transferred by Deering Milliken from Ottarway to the Fiber Utilization Department of Deering Milliken Service Corporation. He lives at 200 Spruce Street, Union, South Carolina.

Engaged: Charles R. Dressler, Jr., ME, Miss Jane Ann Orcutt. The wedding will take place in August. Mr. Dressler is with the U.S. Naval Ordnance Laboratory. His address is 11340 Evans Trail, Apartment 1, Beltsville, Maryland.

William B. Mevers, CE, has been elected president of the Florida Pipe and Manufacturing Company, Orlando, Florida. He was formerly with Kaiser Aluminum and Chemical Corporation.

Engaged: Charles Joseph Siffri, CE, to Miss Shelia Woody. The wedding will take place this summer. Mr. Siffri is a partner in Tri-Knowlton Engineers, Atlanta, Georgia.

Born to: Mr. and Mrs. Troy L. Puckett, a son, Judson Reid, March 3. Troy is with DuPont Construction Division. They live at 4931 Hopkins Road, Meadowbrook Estates, Richmond, Virginia.

Married: Bayley R. Walker, IM, to Miss Martha Frierson. The wedding took place April 24. Bayley is with the Trust Company of Georgia, Atlanta, Georgia.

Married: Arthur O. Gay, IM, to Miss Ramona Cantrell April 4.

Born to: Mr. and Mrs. Frank H. Maier, IM, twin sons, Frank III and Christopher, March 2.

David M. McKenney, IE, has joined the Trane Company's Atlanta, Georgia sales office as a full line sales engineer.

Born to: Mr. and Mrs. Robert S. Runkle, a daughter, Brynn Allison, March 28. Runkle is with the National Cancer Institute stationed at the National Institute of Health. They live at 5915 Beech Avenue, Bethesda, Maryland.

Frank R. Speer, IM, has been named one of the Year for his outstanding service as policyholders as well as his under-

writing achievements. He is with the Donald E. Wall Agency of Penn Mutual, 986 West Peachtree Street, Atlanta, Georgia.

Born to: Mr. and Mrs. James H. Thompson, IM, a daughter, Kay Elizabeth, November 1, 1964. Mr. Thompson is employed by Transport Insurance and has recently been promoted to Claims Manager of the North Carolina District. They live at 507 Alpine Road, Winston-Salem, North Carolina.

**'61** James A. Rosser, CE, has joined Shell Pipe Line Corporation as a hydraulic engineer. He lives with his wife and two sons at 1601 Midkiff Road, Apartment 104, Midland, Texas.

Engaged: Lt. Jake William Stewart, USN, Phys, to Miss Carolyn Pope. The wedding will take place July 10. Lt. Stewart is serving aboard the U.S.S. Harold J. Ellison in Norfolk, Va.

**'62** Glenn P. Elliott, Jr., ChE, has completed two years of active duty with the U.S. Army and is now doing aerospace engineering at NASA's Lewis Research Center. His address is 6030-A Glenway Drive, Cleveland, Ohio.

William E. Evans is now assistant test engineer at Plant Mitchell for the Georgia Power Company. He lives at 113 8th Avenue, Albany, Georgia.

Robert D. Hayes, Jr. has been promoted to senior territorial salesman with Johns-Manville in the Cincinnati, Ohio district. His mailing address is P.O. Box 787, 2213 Cleveland Avenue, Portsmouth, Ohio.

Born to: Lt. and Mrs. Cris Jones, USMC, IM, a daughter, Amy Holden, February 26. Lt. Jones is serving with the Marines in Japan.

Born to: Mr. and Mrs. Richard Ouelette, a daughter, Elizabeth Ann, December 8, 1964. Mr. Ouelette is a staff member of the Division of Sponsored Research at MIT. They live at 1105 Lexington Street, Waltham, Massachusetts.

Born to: Mr. and Mrs. E. Eugene Stewart, TE, a son, Richard Ashley, February 16. Mr. Stewart is a sales and service representative for the Filter Products Sales Division of Eastman Chemical Products, Inc. They live at 2760 Circle View, Kingsport, Tennessee.

William A. Thomas, CE, a design hydraulic engineer, Little Rock District of the U.S. Army Corps of Engineers, has been named one of two persons in a 5 state southwestern division area for a year's graduate study in the Corps of Engineers program providing advanced study for selected engineers. He will attend MIT this coming fall.

Carlton B. Waskey, IM, has completed his tour of duty with the U.S. Army and is now with the Fuel Oil and Equipment Company. He lives at 723 Suburban Avenue, S.W., Roanoke, Virginia.

**'63** Married: Lt. William F. Hoadley, USAF, IM, to Miss Carol E. Jones of Hopewell, New Jersey, August 8. Lt. Hoadley is a management engineer assigned

to Mather AFB, California. They live at 116 Cochran Drive, Sacramento, California.

Lt. Edwin B. Jelks, III, IM, a KC-135 Stratotanker navigator, is now stationed at Griffiss AFB, New York.

Lt. Maurice J. Maguire, Jr., USAF, is assigned to Headquarters, Military Air Transport Service, Scott AFB, Illinois. He is a management engineering officer.

Born to: Mr. and Mrs. James L. Pack, ME, a daughter, Mitzi Gayle, February 5. Mr. Pack is a project engineer with Walverine Tube. They live at 1205 Elizabeth Avenue, S.E., Decatur, Alabama.

Donald R. Parker, IE, has completed two years active military service and is now an industrial engineer with DuPont, Camden, South Carolina.

Thomas S. Roberts, ChE, has been promoted to senior dye chemist in dyeing research at Chemstrand, Decatur, Alabama.

Engaged: Lyman Braddy Smith, IM, to Miss Neva Climer. The wedding will take place in June. Mr. Smith is with Lockheed in Marietta, Georgia.

W. Franklin Smith, ChE, has joined the staff of The Glidden Company, Organic Chemicals Division at Jacksonville, Florida.

**'64** Married: Frank P. Berman, IE, to Susan Starr, CerE, March 28. Both Mr. and Mrs. Berman work in the Engineering Department of Arnold Engineering. They live at 66 North Virginia Court, Englewood Cliffs, New Jersey.

Richard M. Crum, IE, has joined the Trane Company's Mobile, Alabama sales office as a general line sales engineer.

F. William Hackmeyer, IE, has joined the Trane Company's Memphis, Tennessee sales office as a dealer specialist.

Richard W. Rogers, IV, ChE, is now a research and development engineer with the DuPont Jackson Laboratory. He lives at 260 Elkton Road, Apartment B-6, Newark, Delaware.

Married: Allen Culver Sickel, USAF, IE, to Miss Cornelia Patrick, February 13. Lt. Sickel is stationed at Laughlin AFB, Del Rio, Texas.

Engaged: Lt. Chester E. Sparks, USA, to Miss Renee Weiss. The wedding will take place this fall. Lt. Sparks is stationed in Karlsruhe, Germany.

Lt. Curtis P. Stinespring, III, USA, has completed the signal officer orientation course at the Army Southeastern Signal School, Fort Gordon, Georgia.

Baynard B. von Herrmann, IE, has joined the Trane Company's Atlanta sales office as a dealer specialist.

John A. Whiteside, USAF, AE, has been commissioned a second lieutenant. As a missile officer he was assigned to and was present for the November activation of the 321st Strategic Missile Wing at Grand Forks AFB, North Dakota. He lives at 116-A Idaho Drive, Grand Forks, AFB, North Dakota.

Lt. Robert C. Williams, USA, has completed the signal officer orientation course at the Army Southeastern Signal School, Fort Gordon, Georgia.

## VOTE FOR YOUR 1965-66 OFFICERS, NOW

HEADING THE list of candidates nominated to lead the Georgia Tech National Alumni Association during the 1965-66 year is Madison F. Cole, '41, of Newnan. The nominating committee (R. A. Siegel, '36, chairman; Paul Dorn, '31; and Randolph Whitfield, '32) named the following men to run on the slate with presidential-nominee Cole: Alvin M. Ferst, '43, vice president; Howard Ector, '40, vice president-at-large; and L. Lawrence Gellerstedt, '45, treasurer. The committee also named the following alumni for three-year terms as trustees: Talbert E. Smith, Jr., '55; George Morris, '53; George Felker, '36; and Dakin Ferris, '50.

### The Board Election

Under Article VIII of the amended By-laws, four trustees shall be elected by the members of the Association each year for three year terms. In addition, the immediate past president (Daniel A. McKeever, '32, in this case) and six alumni named by the incumbent president also will be members of the new Board. The other 12 members of the Board include the Association officers and carry-over trustees with one or two years to serve on their elected terms.

### The Nominees

**For President**—Madison F. Cole, a life underwriter with the Mutual Life Insurance Company of New York, has served as vice president-at-large for the Association for the past two years. He is a resident of Newnan, Georgia, and is a leader in civic and church activities there. He has served as head of the personnel and finance committee of the Alumni Association.

**For Vice President**—Alvin M. Ferst, Jr., a vice president of Rich's, is currently vice president of the Association. A top civic leader in Atlanta, Ferst headed up the Association Board's important research committee during the 1963-64 year and the fund committee this past year.

**For Vice President-at-Large**—Howard Ector—formerly executive secretary of both the Alumni Association and the Georgia Tech Foundation and business manager of the Athletic Association—is currently a trust officer with the Trust Company of Georgia and one of the state's best-known business and civic leaders. He was recently named to the Sports Illustrated Silver Anniversary All-America team for his post-college accomplishments.

**For Treasurer**—Lawrence L. Gellerstedt, Jr., is president of the Beers Construction Company of Atlanta. Gellerstedt, a top student and student leader at Tech, has been a member of the Board of Trustees for two years and treasurer for the past year.

**For Trustee**—Talbert E. Smith, Jr., has served the Board of Trustees as an appointed representative for the past year. He is a partner in the Atlanta power plant equipment firm of Burford, Hall & Smith. A member of ASME, Smith is an industrial engineering graduate.

**For Trustee**—George A. Morris, Jr., the 1952 all-America center, is currently assistant general sales manager of the Royal Crown Cola Company, Columbus, Georgia. One of Columbus' outstanding young business and civic leaders, he is past president of the Georgia Tech Club in that city.

**For Trustee**—George W. Felker, III, is president and treasurer of the Walton Cotton Mill Company of Monroe, Georgia. A former vice president of Riegel Textile Corporation of New York City, Felker returned to Monroe in 1963 after 27 years of experience with some of the country's leading textile firms.

**For Trustee**—Dakin B. Ferris is the manager of the Atlanta office and resident vice president of Merrill Lynch, Pierce, Fenner & Smith, Inc. He has been with the firm since graduation and has been an account executive in the Mobile office, manager of the Pensacola office and since 1960, manager of the Atlanta office.

### How to Vote

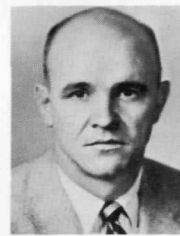
All active members of the Association who desire to confirm the above nominations for officers and elected trustees or



M. F. Cole, '41



A. M. Ferst, Jr., '43



W. H. Ector, '40



L. L. Gellerstedt, '45



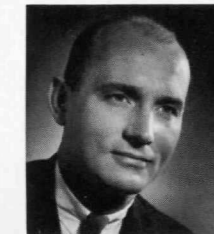
T. E. Smith, Jr., '55



G. A. Morris, '53



G. W. Felker, III, '36



D. B. Ferris, '50

who wish to present write-in candidates may do so by filling out the official ballot on this page and mailing it to the Georgia Tech National Alumni Association, Atlanta, Georgia 30332. This vote is for election. Be sure to sign your ballot.

### BALLOTT FOR NATIONAL ALUMNI ASSOCIATION OFFICERS AND TRUSTEES, 1965-66

☐ My check in box indicates approval of nominees or I vote for the following write in candidates:

FOR PRESIDENT: \_\_\_\_\_

FOR VICE PRESIDENT: \_\_\_\_\_

FOR VICE PRESIDENT (at large): \_\_\_\_\_

FOR TREASURER: \_\_\_\_\_

FOR TRUSTEES (vote for four) \_\_\_\_\_

Signed: \_\_\_\_\_ Class: \_\_\_\_\_

Mail before June 20 to Georgia Tech Alumni Association, Atlanta, Ga. 30332





Coke Refreshes  
TRADE-MARK ®  
 you Best!



BOTTLED UNDER AUTHORITY OF THE COCA-COLA COMPANY BY  
 THE ATLANTA COCA-COLA BOTTLING COMPANY