In the beginning
Tech created the Hill and the dorms.
The Hill was without form and void,
and darkness was upon the face of the campus.
    And Tech said, "Let there be students";
and there were students.
And Tech saw that the students were good;
And Tech separated
the faculty from the students.
Tech called the faculty screwers
and the students screwees
    And Tech said,
"Let there be registration before each quarter,
and let it separate the money from the students."
And it was so.
    And Tech said, "Let the cars upon the campus
be gathered into parking lots all full unto themselves,
and let the streets appeareth." And it was so.
    And Tech said, "Let the faculty
put forth exams, quizzes yielding F's,
and finals bearing shafts,
each according to their departments." And it was so.
    And Tech said, "Let there be a postal office; and
let it deliver letters and packages randomly.
And let there be a Library for working, reading,
and racking out."
And Tech saw that this was good.
    And Tech said, "Let the P.T. courses bring forth
swarms of physically fit bodies."
And Tech blessed her labs by saying,
"Be fruitful and form solutions and fill the test tubes
in their racks." And Tech saw that this was good.
    And on the seventh day of creation,
Mother Tech looked down on that which she had made:
    And She said this was good?
Computer Registration
Standing in line.
Waiting forever
just to receive the shaft.
Checking your courses;
eight o'clock across the board;
Saturday lab.
The computer
must hold a grudge.
Time card in hand, you enter the old gym.

Once inside, it is like going the wrong way on a one-way street and catching every red light.

The board, looming above the crowd, spreads the bad news . . . first, second, and third choices are closed out.

But it is not all bad: it gives you something to do until classes start.
Payment of Fees

"Checks are to be made payable to . . . "
"Cash payment will be made at your own risk!"
"A late fee will apply . . . "
Familiar lines, every one.
Signifying many things:
To begin anew the struggle for knowledge.
To continue toward your career goal.
To say hello to new challenges.
To say goodbye to one helluva lot of money.
Getting Into the Groove
Being known by a number;
Standing in line
to spend $50 on books;
Carrying a footlocker, suitcases,
tons of clothes on hangers,
and boxes of books and
old lab reports
up four flights of stairs
to your new room;
Standing in line
to open a new checking account
or make your quarterly deposit;
is getting into the groove
of the new quarter.
Getting Ready for the Day

To awaken at Georgia Tech is to find oneself half dead.

"Oh, no!
That can't be me
in that steamed-up mirror."

The smell
of lemon-lime shaving lather
blends harmoniously with voices
resounding in song from the showers.

To shave or not to shave . . .
To shower or not to shower . . .
To awaken and face a new day,
or to stay in the rack,
dreaming only of pleasant things.

These questions have long plagued the Tech student.
All too often,
getting up is a virtually traumatic experience.
Getting Ready for the Day
Parking Problems
Tech engineering students are puzzled: This improbable situation is encountered every day. A creative creature, the Tech driver parks in many imaginative places. And receives relatively unimaginative parking tickets. The solution eludes us. So do the parking places.
Parking Problems
The Classroom
"Time's up.
Turn in your papers."
Sweat.
Maybe I can scribble formulas
and fake him out.
If only
I had ten more minutes.
"Let's go, you guys,
There is another class
coming in at 10."
C'mon.
Just one more minute.
If only.
Books.
New books, chewed books, used books, screwed books. Slung on backs or held in racks. Old knapsacks, half rotted, still serve the purpose. No holds barred in climbing the Hill. And Tech creativity provides ways to carry books: up by the armpits, soaking up sweat, spiral notebooks and legal pads dangling from the fingertips. Guys swinging briefcases down by their knees. Girls clutching papers up by their ... Everything in disarray. Books.
It's often very difficult to find any significance or relevance in lab courses. Be it chem lab or ROTC drill, the practice-makes-perfect philosophy seems ridiculous to those who must endure the hours of drudgery. All aspects of the "lab" concept lend themselves to laughter — plagiarisms runs rampant and effectively conceals ineptitude; all of the discipline conferred on ROTC jocks during drill seems obscure an hour later as they stagger around stoned; CE surveyors make a public spectacle of themselves as they use finesse, not instruments, to make measurements jive. Even so, experience gained in lab courses gives a confidence and proficiency that cannot be obtained elsewhere. Weighing every aspect of labs, it can be said that they combine the best of both worthlessness and wisdom.
The computer's inhumanity to man dominates every computer course at Tech. Trudging through the ice and wind in the pre-dawn darkness of a winter-quarter day, only to have the computer reject your carefully prepared program, is beyond the realm of what's fair. Discouraged but determined, you resubmit the program once again, only to have it inexplicably thrown out. Desperation and frustration and waiting and waiting and waiting distinguish this computerized shaft from all others.
The library is a haven for devoted researchers, engineers, and other studious types. The average Tech student finds the library a great alternative to the otherwise necessary punt. The library offers a wide variety of excellent materials by which you can pull out vital grades, thereby rescuing your overall. One means to this end is the xerox room: mass-produced plagiarism, propagated to provide a passing grade after all individual efforts fail. Then you pay the girl and walk out, glad to have it over with. Now back to the library work area to transcribe your copy into fact. Sometimes the silence gets to you. Two hours at the library is worth a bottle of Sleep-eze.
Studying
In the middle of an all-nighter, it's not unusual to go to the window for a stretch; and as you gaze at the lights in the nudist colony of dorms, you think of the things you'd rather be doing, the places you would rather be, the quiz you're gonna get screwed by in the morning. But you can't think anymore now: you've got to go back and study in the sterility of glaring desk lamps.
Grade Sheets, Drop Slips, Change of Major

When you walk out of a critical final, there's nothing left to do but wait for the grade sheet. Optimism is the only policy; unfortunately, F's occur despite positive thinking. Going the route of the five pink slips beats five or six hours of F. Even so, dropping a course hurts: not only does it imply failure, but it also means you've got to take the damn course over again. But don't be concerned — you can always drop once more. Then there's the big punt: major change. Changing your major is a great awakening — you suddenly realize that you've always wanted to be an I.M. (At least until you clear 2.0 again.)
The President and Faculty
of
The Georgia Institute of Technology

To all to whom these presents may come, greeting: Whereas

George Paul Burdell

has completed all the requirements for graduation, now, therefore, We, under
the authority vested in us, do hereby授予 upon him the degree of

Bachelor of Science in Industrial Management

with all the rights, privileges and honors thereto appertaining.

In witness whereof, the signature of the Chancellor of the University System,
the President and the Registrar of The Georgia Institute of Technology are
hereby subscribed, and the seal of the Institute is affixed.

Given at Atlanta on the nineteenth day of March, in the year of our Lord,
nineteen hundred and seventy-one.

[Signature]

[Signature]
When you're at last a Rat
at Georgia Tech,
disillusions and daily fantasies
are not at all uncommon —
these are all that keep you going.
It's hard as Hell —
and you soon find it out.
For many the pressure is too great:
"But I didn't think it would be like this . . ."
Roommates drift off to other schools
and Fall Quarter friends
may never be heard from again.
But YOU — the ones who do make it —
Even after spending three or four extra quarters
on Mother Tech's notorious Hill,
and after depositing a pocketful
of Dad's money
into someone else's bank account —
you're the ones who,
with much pride,
may look back and say
"Yes, I went to Georgia Tech,
and am proud as Hell of it!"
Beta Gamma Sigma
I. M. Honorary


Dr. Green  Mr. Jackson
Dr. Fulmer  Mr. Maddox
Dr. Bellingar  William E. Baumgartner

Robert A. Sams  William S. Saville

Richard E. Schier  William D. Sumner
Phi Eta Sigma

Freshman Academic Honorary
LEFT TO RIGHT: Richard Rodgers, Bruce Stephenson, Sherman Glass, Stephen Drennon, Frank Barns Jr., Mike Bachik.

Order of Omega, Greek Honorary
Scabbard and Blade, Military Honorary

Koseme
Junior Honorary

Brent Jorgeson

John Harter

Rick Rodgers

Dave Neillan

J. B. Kulakowski

Mike Skillman
Anak
Highest Senior Honorary

Charlie Gaylord
Ross Bowers
Don Pittard
Sherman Glass
Research at Georgia Tech has long played a vital role in the development and prestige of the Institute. Facilities and know-how are virtually unparalleled, and certainly rank with the best in the United States. Although research activity represents experimentation in a multitude of diverse areas, a central theme always predominates — that being the involvement of Tech's researchers in problems that relate to the benefit and welfare of society.

It has been attempted here to bring to the reader's attention only a few of these "problems of society" and the solutions which Tech researchers have brought about. In light of the present situations, particular emphasis has been placed on Tech's involvement into studies of pollution.

The burning of peanut hulls has long been a source of air pollution throughout Georgia, a major grower of peanuts. Dr. M. D. Bowen of the EES's Chemical Sciences and Materials Division came up with an idea which has resulted in a major development. Processing the hulls at very high temperatures results in a carbonaceous product along with several organic by-products. Uses for the products are varied: the carbonaceous product may be used as charcoal and possibly in the treatment of sewage and in the manufacture of rubber. The organic by-products are of potential value and, with further chemical processing, may be used as raw materials in several industries. These uses are underscored by the virtual elimination of the dense smoke given off when peanut hulls are burned.

For sure, a certain amount of water pollution, from whatever source, is a fact of life. But how long does it take a stream or river to recover? Georgia Tech is developing a method of predicting the time required for reaeration of a stream, the replenishment of its oxygen from the atmosphere. Pollution decreases or eliminates the oxygen dissolved in a stream, and most forms of aquatic life can exist only if there is an adequate supply of dissolved oxygen in the water. The rate of oxygen use as well as the rate of reaeration must be known if economical treatment facilities are to be designed. The Tech researchers use a radioactive tracer gas, krypton-85, to measure the reaeration capacity of highly polluted sections of the Flint, South and Chattahoochee Rivers near Atlanta. The tracer dose is poured into the stream, then is measured again about 15 to 20 miles downstream to determine how much oxygen the stream has absorbed from the atmosphere over the measured distance. These results are already being used by the Georgia Water Quality Control Board, and in addition, they will strongly influence the expenditure of billions of dollars that will be spent on waste treatment in the United States over the next decade.

Attacks on air pollution can ultimately only be rhetorical if its nature isn't understood. At Georgia Tech research is under way to analyze the contents of polluted air by content — which elements are present — and by quantity — what weight per unit volume of air. Air is sampled at various locations in Metropolitan Atlanta by drawing a known volume of air through a membrane filter, trapping particles down to the submicron range. The particles are then irradiated in the nuclear reactor and, as they go through the process of atomic decay, are identified by gamma-ray spectrometry. This method of atmospheric particle analysis will provide a means of determining just what pollutants are present in the air and how much of each, and these measurements will in turn serve as a basis for setting standards for maximum allowable amounts of a given pollutant.
In a departure from past years, departmental histories have been omitted from the 1971 Blueprint. In place of this information is a synopsis of recent innovations and changes within each school. These small summaries should provide an insight into the growth of Tech's academic life.

**AEROSPACE ENGINEERING**

Aerospace engineering offers a balanced curriculum of classroom learning and experimentation on modern equipment. This school has laboratories of aeroelasticity, rarefied gas flow dynamics, low speed aerodynamics (VTOL aircraft), plus a low turbulence wind tunnel, magnetohydrodynamic plasma tunnel, and static and dynamic structural test facilities.

**ARCHITECTURE**

Tech's School of Architecture offers three undergraduate curriculums; a five year course in Architecture with options in Design and Structures, a four year plan in Industrial Design, and a four year program in Building Construction. Master degrees are given in Architecture and in the newer field of City Planning.

The graduates of the School of Architecture are taught to design beauty into utility for a more liveable future.

**BIOLOGY**

Some of the vital areas being researched by the School of Biology are odor control in hospitals, and pollutants in the air. Each innovation in food processing requires assurance of its safety and merit; studies concerning food processing, food poisoning, protein synthesis, vacuum packaging, and even irradiation are now being carried out. A controversial topic of the day is whether genetic damage is induced by DDT and irradiation.

**CERAMIC ENGINEERING**

Tech's new student center opened for student use in August of 1970.

Nuclear reactors, space vehicles, computers, and even consumer goods require advanced components. Ceramic engineers, the ones who develop these new substances, are in great demand.

At this time, Tech's school of ceramic engineering offers bachelor and master's degrees. Research is being done in bioceramics, crystal growth, mineral usage and preparation, and fundamental atomic and molecular behavior.

**CHEMICAL ENGINEERING**

The department of Chemical Engineering, located in the Burger-Henry Building, has advanced facilities including labs for cryo-chemistry and cryogenics, X-ray characterization, fine particle study, metallurgical research, unit operations and bench-scale testing. The department has a machine shop, computer terminals, and other such equipment.
CHEMISTRY
The biggest news in the School of Chemistry this year was the completion of the new $5 million Boggs Building described as "a research mechanism surrounded by walls." On the academic side, Dr. H. O. House, renowned chemist, arrived at Tech from MIT to occupy the Seydel-Woolley chair.

CIVIL ENGINEERING
C. E. students are learning to solve "people problems" such as transportation, low cost housing, waste disposal, and pollution control. Research is being conducted on severe vehicular accidents. Recently, this school received national recognition for its findings on safety in school buses. Another concept being studied is a concept for delivering mail between local post offices by pipeline rather than by trucks.

ELECTRICAL ENGINEERING
The faculty of the school of electrical engineering has approved a new curriculum with maximum flexibility, minimum redundancy, and a viable structure for the institutional laboratory program. The IEEE Student Branch continues to operate an electronics laboratory, equipped by the Institute, for the benefit of all Georgia Tech students.

The ELECT-RECK, the car that made national headlines as an entry in last summer’s transcontinental race, is attracting considerable attention among Georgia high school students. EE was selected to participate in the Bell Telephone Laboratory’s One-Year-On-Campus Program, thus joining a select group of current participants.

ENGINEERING GRAPHICS
One of the first skills most Tech freshmen learn is graphical projection of ideas. This year, the graphics department has come up with a completely new approach. The three-quarter system of the past has been replaced by two three hour courses. Emphasis on visual communication and design is affected through a revolutionary program; one hour per week is devoted to mass lectures to as many as eight sections simultaneously. The remaining two hours are divided between drawing and instruction.
ENGINEERING SCIENCE AND MECHANICS

The undergraduate curriculum leading to the degree Bachelor of Engineering Science has recently been completely revised. The total number of credit hours has been reduced to a number comparable to that found in similar Engineering and Science programs at leading institutions, and at the same time, greater scope and flexibility have been obtained by increasing the number of elective hours. The prime objective of the revised curriculum is to provide the engineering student with a firm foundation in science and engineering while maximizing the number of options available to him.

ENGLISH

The School of English has revised its curriculum by offering a new series of upper-level electives. Many of the new courses are centered around contemporary issues and interests. Courses in Afro-American literature and Ecology in literature have been offered this year. In addition, courses that relate science and literature of past eras, such as "writers in the Age of Darwin" and "writers in the Age of Freud and Einstein" have recently been introduced.

INDUSTRIAL AND SYSTEMS ENGINEERING

A major curriculum change occurred within the ISE school this year. Total hours were reduced to 205, elective hours were increased so as to permit individual structuring of undergraduate study. Revision, addition and deletion of courses updated the school's listing of courses while creating a greatly improved program of study.

INDUSTRIAL MANAGEMENT

Industrial Management is such a rapidly growing school that new programs, both undergraduate and graduate, are being organized to better facilitate the students' education. I.M. faculty members have recently published some outstanding material in their field.

INFORMATION SCIENCE

Tech's department of information science offers outstanding graduate programs in the fields of information and computer systems sciences, taught mainly by senior faculty. Non-degree offerings for undergraduates provides opportunities for those so inclined. The school has its own computer laboratory. Computing applications, man-machine communications, semiotics, and cybernetics are a few of the research areas covered by this school.

MODERN LANGUAGES

Methods of instruction have been recently divided along two main interests: a specifically cultural interest — the development of a program of instruction in the belletristic literatures of the most common languages taught, such as Spanish, French and German, and a scientific interest — the development of a program of instruction in the field of linguistics. The emphasis on these two interests is reflected in the official approval of a full complement of upper-divisional courses in each of the aforementioned disciplines.

MATH

Being a part of a technical-engineering school places the Tech Math Department in the unique position of having to serve two masters; a mathematical basis must be built for the other departments of science and engineering, but concern must also be found for the student wishing to pursue mathematics itself.

In response to the need to make required mathematics more palatable, the Math Department has been cautiously revising and expanding its undergraduate programs. The Math Department has succeeded in the past in instilling mathematics in its students. It is certainly gratifying now to see an attempt not only to provide a better and more well-rounded education to Tech students, but also to make that education more interesting.
MECHANICAL ENGINEERING
The M. E. department offers varied studies such as design, dynamics, fluid mechanics, heat transfer, kinematics, philosophy of design, thermodynamics, materials for engineering, and energy conversion. Visual aids and other effective teaching measures have been initiated to enhance the quality of lectures. Graduate students are offered an ever-increasing curriculum to choose from. Dynamics and vibration, power and propulsion, fluidics and fluid power, combustion, and bioengineering are just a few of the available fields.

NUCLEAR ENGINEERING
The Georgia Tech School of Nuclear Engineering and the research this department carries on will undoubtedly play an instrumental role in the solution of many problems of the 1970's. Offering only graduate-level degrees, this school provides facilities unsurpassed on any campus. Laboratories are being developed for research in fluid flow, heat transfer, and laser technology. Additional assets of extreme importance are the Price Gilbert Memorial Library with its collection of A.E.C. documents, and the Rich Electronic Computer Center.

PHYSICAL TRAINING
The entire program is devoted to defeating the vicious cycle of false fatigue where the less one does, the less he feels like doing; the less he feels like doing, the less he does; the less he does, the less he is able to do. Development of the department has been impeded by a lack of facilities and by a lack of adequate faculty for broadening the courses offered. But now, with the SAC-70 project so close to becoming a reality all eyes are turned to the future. The completion of this project will allow the Physical Training Department to provide a variety of activities for the entire student body, including, for the first time, women students.

PHYSICS
Faculty research specialization has recently included theoretical studies in elementary particle physics, nuclear structure, many body problems, magnetism, transport properties and approach to equilibrium. Experimental studies have included transport properties of ions in gases, collision ionization and excitation, ultrasonics, health physics, biomedical physics, lattice dynamics, low energy diffraction, low temperature physics, molecular spectroscopy, X-ray and neutron diffraction.

PSYCHOLOGY
The Psychology curriculum may be the broadest of any on campus. It allows students fifty-six hours of electives, features a truly workable advisor system, and gives student suggestions greater than normal consideration. It has been a part of Georgia Tech while Tech has been experiencing growth away from technical emphasis toward more theoretical application; in a sense, as Tech has tended to approach university status.

The unique undergraduate program, the personal element, and the greater reliance of engineering and scientific areas upon psychology have made the School of Psychology a necessary part of Tech.
SOCIAL SCIENCE

A special senior and graduate level course in Science, Technology and Human Values attracted more than 400 students in the spring of 1969. Forty-two faculty members, representing most of the schools on campus, acted as discussion leaders in the course on a volunteer basis. The department also offered for the first time some experimental courses which were based largely in selected foreign films. A series of lectures on aspects of the history of technology were also offered for some 250 students, who had the option of taking an examination for one hour of academic credit for the lecture series.

TEXTILE ENGINEERING

The advent of composite fibers, non-woven materials, and synthetics has practically given rebirth to the textiles industry. It now ranks as Georgia's largest industry, and has derived by no means small assistance from the A. French Textiles School here at Tech. The industry, and consequently the Textiles School, is now experiencing the greatest growth in its history. New forms of textile goods and new uses for textiles have forced great change in outlook and emphasis in textile engineering, so that the Textile School is expanding its curriculum to make new use of computer technology, new laboratory processes, new production methods, and the appearance of many polymer fibers.

AIR FORCE R.O.T.C.

This year women were officially included among the qualified and selected students in the cadet program. They, like the male cadets, will spend the first two years in the General Military Training course and the last two years in the Professional Officer Course.

ARMY R.O.T.C.

Increased emphasis on individual leadership experience characterized the 1970 - 71 year. Optional courses in other departments became available to cadets who were given ROTC credit for taking the courses. Two Tech cadets were selected as the top cadets out of 2800 men at Fort Bragg during summer camp.

NAVAL R.O.T.C.

NROTC at Georgia Tech was one of the first units commissioned in the United States; today, it is the fourth largest unit in the country. Naval ROTC students are enrolled for the full four-year period. Students may apply for flight or nuclear power training or for a commission in the Civil Engineer Corps, Supply Corps, or for the unrestricted line during their senior year. Particularly desired are candidates for the nuclear power school, with subsequent assignment to nuclear surface ships and submarines.
School Directors

TOP LEFT: Dr. G. Bridger, Chemical Engineering. TOP RIGHT: Dr. William Spicer, Chemistry. ABOVE: Dr. Edward L. Fincher, Biology. RIGHT: Dr. Lane Mitchell, Ceramics.
TOP LEFT: Dr. Arnold Ducaffe, Aerospace Engineering. TOP RIGHT: Dr. W. M. Sangster, Civil Engineering. BOTTOM LEFT: Dr. Paul Heffernan, Architecture. BOTTOM RIGHT: Dr. Demetrius Paris, Electrical Engineering.
School Directors

LEFT: Dr. C. J. Roberts, Nuclear Engineering. BELOW: Dr. Stothe P. Kezios, Mechanical Engineering. BOTTOM LEFT: Dr. John D. Neff, Math. BOTTOM RIGHT: Dr. Robert N. Lehrer, Industrial Systems Engineering.
School Directors

TOP LEFT: Dr. Pat Kelly, Social Science. TOP RIGHT: Dr. James R. Stevenson, Physics. ABOVE: Dr. James C. Taylor, Textile Engineering. RIGHT: Captain Forrester C. Auman, Navy ROTC.
TOP LEFT: Dr. Edward Loveland, Psychology. TOP RIGHT: Colonel William T. Preston, Air Force ROTC. LEFT: Colonel Wayne W. Bridges, Army ROTC. ABOVE: Mr. John McKenna, Physical Training.
Administration

TOP: W. Eugene Nichols, Associate Dean of Students. ABOVE: Gary J. Schwarzmueller, Assistant Dean of Students. RIGHT: William Miller Templeton, Assistant Dean of Students.
TOP LEFT: Gary M. Bledsoe, Assistant Dean of Students. TOP RIGHT: Judith E. Priddy, Assistant Dean of Students. LEFT: James E. Dull, Dean of Students.
ABOVE: Philip G. Rector, Director of Physical Plant. TOP RIGHT: Bill D. Pickel, Director of Placement. RIGHT: James G. Wohlford, Director of Cooperative Division.
TOP: Dr. James A. Strickland, Director of Guidance and Testing.
LEFT: Mrs. J. H. Crosland, Director of Libraries.
ABOVE: Dr. Rocker T. Staton, Jr., Dean of Undergraduate Division. TOP RIGHT: Dr. Sam C. Webb, Dean of Division of Graduate Studies and Research. RIGHT: Dr. William H. Eberhardt, Acting Dean of General College.
LEFT: Dr. Sherman F. Dallas, Dean of College of Industrial Management. BELOW: Dr. Walter O. Carlson, Acting Dean of Engineering.
President Hansen

Dr. Arthur G. Hansen, President of Georgia Tech, is directly responsible for everything that goes on at the Institute. In this capacity he works a 12 hour day that often extends far into the night. Any significant action at Tech passes through his office: matters such as campus planning, student affairs, security, commencements — and bomb threats. President Hansen hires, promotes, and dismisses faculty and staff members, and reviews student appeals; he supervises all financial aspects of the school, and acts as liaison to the Chancellor and Alumni. In addition to his 6:00 to 6:00 schedule, Dr. Hansen usually has a busy evening due to official functions, speaking engagements, receptions, and other obligations.

President Hansen saw this year as a financially demanding one, but one in which his respect for both students and faculty increased immensely. He is very proud of the efforts which culminated in such programs as Technology Week.

Next year, Dr. Hansen hopes to see more efficient operation, new programs, and a continuing review of Tech's curriculum. He has said that he enjoys his job because "Tech has one of the finest student bodies in the country." Well, we have one of the finest presidents, too.