October 24, 1980

Southern Technical Institute — Marietta, Georgia

The Sting

Alternate Energy Issue

Student Government

AN SGA UPDATE

The Student Government Association is working hard in the interest of Southern Tech's student body. So far this year, the SGA sponsored a voters registration drive on October 1. It was considered a success with 92 students registering. The SGA also sponsored another project which was not as successful. Several local candidates were invited on campus to speak to the studen body, but not many students showed up. The candidates then went to the students, but very few seemed interested. One of the candidates who participated was Dr. Castellucis, a faculty member of STI in the EET Department on a leave of absence. He is challenging Larry McDonald, who refused his invitation Other participants were Fred Aiken and John Herrin. Because of very little student support of this project other such ventures may not be attempted.

Are students apathetic? According to Tobin McTyre, secretary-treasurer, "student apathy still exists for several reasons. Many students are employed full-time, and many students' only purpose for being at STI is to get a degree and are not interested in extra-curricular activities. Previous SGA administrators did not care, however, this one wishes to change that and increase the students' personal activites and involvement on campus. The SGA is working for the students and it is to their advantage to be aware of this fact. Apathy is characterized when four candidates come to the campus and aside from the SGA representatives, only two other students were at the reception and no more than five participated in the forum. Students were made aware of this event." If the SGA is to be successful in it endeavors, the student body must participate in planned activities.

Student nonparticipation does not only involve the student body in general, but also those who are elected to serve their needs. The first three meetings of the SGA were cancelled because there was not a quorum. Since then, two members have been expelled. They are Jim Guyton, a Representative at large; and Steve Tonker, Dorm II Representative. They were expelled for being absent from the meetings more than three times.

Now business is being conducted as usual. The SGA has set up several committees. The first committee's purpose is to investigate the feasibility of putting up a new STI sign at the lower entrance of Clay Street. The second committee's purpose is to work with a faculty committee on On-Campus Housing. They are investigating the idea of building new dorms or adding extensions to the present dorms as opposed to apartment living. Another committee was set up to investigateon-campus vandalism.

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NEW DIRECTOR OF STUDENT COUNSELING

Ms. Barbara Anderson is our new Director of Student Counseling, replacing Mr. Richard Bean. Mr. Bean resigned June 30 of this year and is now a partner in a career placement firm.

Before coming to Southern Tech, Ms. Anderson worked for the Cobb County Board of Education as the Student Support Team Coordinator. Her duties included developing educational plans for students not receiving special education services and developing inservice training for the faculties of thirty-three Cobb County schools.

Ms. Andersons' educational background is extensive, even in light of educational requirements for her job. Besides nine years' work experience in the counseling/education field, Ms. Anderson received a BA in Education from the University of Florida in Gainesville. A Master of Education degree from Georgia State University followed, and further graduate studies, workshops, and seminars complement her degree studies.

Of interest to all students at STI is a proposal of Ms. Anderson's that, if enacted, will provide the school with a Peer Counseling Program. Students may be referred to other students for help with problems, academic or otherwise, in much the way the Atlanta NETWORK operates. Interested students may speak to Ms. Anderson at her office (second floor, Student Center).

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GOAT DAY TALENT SHOW

Southern Tech will be sponsoring a GOAT DAY TALENT SHOW on November 6, 1980, featuring STI students. The Master of Ceremonies will be A. Whitney Brown. It will be held in the Student Center Ballroom at 8:00 pm. Admission is FREE.

GOAT DAY

GOAT DAY will be sponsored by the Interfraternity Council and the Campus Activities Board.

Thursday, November 6
Talent Show featuring STI students starring A. Whitney Brown (professional comedian) as Master of Ceremonies.
8:00 p.m. Student Center Ballroom

Friday, November 7
GOAT DAY MOVIE--CAB presents "Rock-n-Roll High School" starring the Ramones.
4 & 9:00 p.m. Student Cen. Ball.
ADMISSION: 50¢

Saturday, November 8
Bike Race
10:00 a.m.
Traditional Field Day Events
11:00 a.m.

Editors' Corner

MORE CHANGES

Here is our second issue of the fall quarter and we already have a few changes. First, you might notice the new STING logo and the titles are mostly in Olde English lettering. We like the artistic change of pace and I would like to thank Richard Bostick for the calligraphy. You might also notice that we have twenty pages in this issue. Again, we felt that, in order to serve you better, we needed more space to include a nice variety of features, news and announcements. We know you will find enjoyable reading throughout our paper and please drop us a line if you like it.

You might be disappointed to learned that we haven't chosen this issue to focus on politics, although the election is November 4. This is not a mistake, but rather a reaction to what we feel has been media overkill in this election. Every word, movement and opinion of all three candidates is recorded, restated, wrote about, criticized, promoted, admonished, rebutted and retracted by every form of media. And then it all starts over again the next day! The end result of this absurd coverage is that each candidates is made out to be a fool somewhere along the line, and this only increases the voters' apathy and disgust with all of them. The candidates themselves play along because they think they are actually using the media to their advantage. How foolish this circus appears to all of us with dignity.

We won't insult your dignity by lending any time or space to cover these elections until after they are over. Until then we can only pray that the lesser of three evils will prevail and that he will quietly leave at the end of four years so we can start it all over again.

E. R. Auerhan
Editor

INTERNATIONAL STUDENTS CLUB

Some of you may have noticed that we have at Southern Tech, a sizable community of foreign language students These students come from all over the world. Currently there are 130 enrolled in school, most of whom are Iranian. Because of the language barrier, these students often have more difficulty adjusting to college. They are limited physically, socially, and in their ability to learn. We feel that these students could adjust more easily if the lines of communication were to open up to the rest of us, i.e.: if foreign language students were brought into the mainstream of campus life. This would be accomplished by renewing the International Students Club, which was disbanded about two years ago. The club would not only be open to foreign students, but to all of us, so that a forum would be created to serve every student as a member of the world community. Understanding international problems, such as in the Mideast or in Central America, is imperative to all Americans. Intelligent discussion with foreign students would help us all understand problems in other parts of the world. An International Students Club would provide the forum for this discussion, and it would be a benefit to all of us.

E. R. Auerhan
Editor

SEND IN THE CLOWNS

Imagine, if you will--if you can--, the Three Stooges being somehow revived, then each given their own sitcom, during the same time slot, each on one of the three major competing networks. An interesting premise, you say? Fellow students, ponder the possibility no longer--it's already quite real.

I'll admit that this election year does give the public more choice than it has done in the past few election years--they can choose the least of three evils, rather than simply the lesser of two. Much more democratic, no? No, not really. Look at the choices.

Choice number one--the incumbent, who in order to win the democratic primary enbraced the loser's platform promising if elected, then, to spend more on those not working than the U.S. has done in the past. Thanks, Jimmy. Keep in mind that Jesus said, "There will be poor always," and that the civilly disobedient Thoreau said, "Charity to the poor does not help their lot"--evidence that freethinking men of some fame don't quite agree with your philosophy.

Choice two--good ol' Dutch, who apparently thinks life is a real image of the stuff on celluloid. I can imagine this ex-cowboy in the Oval Office, thinking his way through some grave crisis. "Now, what would the Duke do in a case like this? How would Gary Cooper deal with this Ayatollah fella? Suppose I'd better call the studios for some advice--I could get some script editors to be my cabinet members.

But I can't knock Mr. Reagan entirely. I agree with him when he says that we need nuclear power--just don't make it airborne, Ron. We don't need any more conflits.

Finally, choice three--John Anderson. Mr. Anderson, too, has had much contact with the film and TV industry. You may remember hin as that commercial character from the 1960's--certainly you recall, "Man from Glad"? No?! Perhaps, reader, you can remember his next biggest role--"Good Morning, Mr. Phelps..." But it matters not--just tune in to Channel 11 News for a peek at Anderson at his most recent job.

Of course, I can't close without pointing a finger at the people responsible for this circus. It's those whose next goal in life is a gram of cocaine for the weekend, or money for a downpayment on a 280Z--and also those who stand, shabby and

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The Sting

Eddie Auerhan	Editor
Stephen Cantrell	Assistant Editor
Terry Prayton	Reporter
Mike Payne	Reporter
Greg Wagstaff	Reporter
Ken Shaw	Sports Editor
Alan Bearden	Reporter
Jack Booker	Reporter
Steve Causey	Typist
Richard Bostic	Artist
Dr. Carol Barnum	Advisor

Backtalk

Dear Editor,

Everytime I feel upset about a matter going on campus, I know I have somebody to trust. This somebody is unmistakebly our famous campus newspaper, "STING".

I wrote you because it is of a prime importance for me that what happened to me won't happen to other fellows.

I was hoping to graduate at the end of this current quarter, the fall quarter, but is unlikely for me now to graduate before the Spring Quarter. I was hoping that the course AET 344 would be offered this fall, but it was not, and accordingly, I won't be graduating this fall. I was contracted to work for Lockheed start January of this year with a salary of $1800 per month and I lost this opportunity.

I understand that this institution is a small one with a limited budget, and cannot afford offering each course in each quarter, but should not it offer the required courses at least?

I am sure and full of hope that publishing my letter in the STING will caution my fellow students from falling into my position and will urge the administration to do something about this problem.

Sincerely,
Nicholas Maliha

Dear Editor,

You have an informative newspaper for Southern Tech students and faculty. One problem the newspaper has is there is not enough students participating. If more students were to contribute articles to the STING the paper might become more enjoyable to read. A reader's survey on some important question of the week would also be very interesting to the readers.

The questions could be humorous or serious and could prove to be interesting reading.

Erik Hotton

Dear Editor,

As you must know, our computer room has only 4 emulators and 3 key punches. And since there are over 200 students taking computer programming this Fall, obviously the room could be busy all day 7 days a week if it were open. I understand the hours have been extended somewhat to include 4 on Sunday that were not available last Spring. However, as one of many students here who are also parents with soccer games, etc., to attend on Saturdays, I find it nearly impossible to arrive in time to use the room before it closes at 2:00 on that day. (Sundays don't work out well because of other family-related business.)

Surely, the benefit to the many students with difficult schedules to work around of extending the hours to at least 4:00 on Saturdays, would far outweigh any extra cost involved. Then too, these extra hours would help offset the time lost by the frequent power outages.

Virginia Keeling

Dear Editor,

You have recently recieved a very important position on our campus. I congratulate you and I hope you will like your position. I have one suggestion I would like to give you, which could possibly enhance STI's reputation in the community.

I feel that the STING should be made available to the public, at various locations within Marietta. This would allow the public to read about the development of STI, and hopefully become more involved with us. Such things as extension classes, basketball games, baseball games, bathtub races, Goat Day, and many other activities of public concern could be made available to the public, through the STING.

This would be especially easy to do and not really increase publication cost very much over last year's figure; as the STING is now bi-weekly. Thank you and good luck with your new job.

Landon Grindstaff

DORMS

Dear Editor,

The purpose of this letter is to let the authorities of the school know about the sanitary conditions of the dormitories.

The ratio between insects and people living in the dormitories is about 50 to 1. The roaches, ants and moths are the biggest population in this school.

I think that one of the main causes is because the dormitories do not get cleaned on weekends and the garbage receptacles spread their odor of rotten food all over. In general the sanitary conditions of the dormitories are not good at all.

I hope that the authorities of Southern Tech would do something about this problem before an epidemic gets here.

Thank you for your attention to this letter and I hope it will be published.

Erasmo

Dear Editor,

I have a suggestion about improving the life in the dorms. I'm not saying the dorms are the worst place in the world, but they need plenty of improvements.

First, the clealiness of the dorms is unsatisfactory. I think the rules should be made to ensure cleaness to each floor. If the floors of the dorms are not clean the entire hall should be penalized.

Secondly, the school should furnish more insecticides to kill the bugs. This act will coordinate with the first suggestion. The rooms should be sprayed at least twice a month.

Thirdly, the price of the dorms now is outrageous for the condition they are in. If we are to pay the amount charged, we are entitled to some acceptable rooms and halls.

Mike Muller

GAMES

Dear Editor,

I am writing to you about the paper you wrote on the basketball team. I think you should have more detail about the basketball team because the season is about to begin. The basketball team would like to have most of the school students at the game. Also, I think the students would like to know more about the basketball team so they could be at the games in large numbers.

Baxter Thomas

Dear Editor,

You appear to me as a person who cares for his, as well as his fellow students' health. This letter is in complaint of the poor athletic program here at Southern Tech.

Here at Southern Tech, we have four extramural sports, various intramural sports, and no physical education courses.

The extramural sports do not provide a sport in which a wide variety of people can participate. The intramural sports are very unorganized and do not have a great deal of good sportsmanship. There are no physical education classes for a student to participate in. I firmly believe in the old saying, "A healthy body makes a healthy mind."

If you also believe in that old saying and are tired of watching your body slowly turn into a soft, useless piece of flesh; you will agree with my position and print this letter.

Andrew C. Martin

Dear Editor,

The Student Center needs more recreational equipment. The addition of this equipment would increase student morale by making it more likely for a student to take his mind off school pressures when needed.

If there were more pool tables and pinball machines in the Student Center a student would have a better chance to play on one, but as of now it is hard to find either during certain times of the day. With the raising of tuition prices it seems as though the school would have enough money to get more equipment. The money made from these games would eventually pay for the table or machine and begin to make a profit.

The students of Southern Tech should petition the administration for additional recreational equipment. The recreational part of school is one of great importance for the overall education of a student.

Ronald Lewis

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The Sting Focus:

ALTERNATE ENERGY SOURCES

ENERGY CONFUSION

At the beginning of the summer of '79, President Carter outlined a plan to spend 89 billion dollars to create a synthetic fuel industry. This is the single largest expenditure in the nation's history and another example of how a good idea becomes wasted in the hands of bureaucrats. This synthetic fuel program is so riddled with fallacies and drawbacks, that many experts feel it cannot succeed. The major drawback is exactly what the program is targeted to do--to provide at least 500,000 barrels of synthetic fuel per day by 1985. This program is too narrow and too small to serve the nation's needs. The U.S. should be thinking in terms of 6 million barrels per day, which is roughly three-quarters of the total amount that the U.S. now has to import.

Because of inflation and increasing costs of environmental controls, price predictions for building synfuel plants have been rising steadily. The new range is from $1 billion to $3 billion for an oil shale or coal liquifaction plant that would produce 50,000 to 100,000 barrels a day. A coal gasification plant would run some $1.5 billion. Ever climbing costs have kept the estimated prices of producing synfuels persistently ahead of world crude prices. Congress should be ready to provide more support than just a guarantee to buy a specified amount of synthetic fuel at a specified price. It should be prepared to underwrite a synthetic fuel industry big enough to be an effective weapon against the oil ministers of OPEC. To finance such an undertaking, Congress should establish a federal corporation with the authority to finance not only synthetic fuel plants, but investment in coal liquifaction, shale oil, gasohol, alcohol, solar power, biomass, or any other substitutes for petroleum; which brings us to another fallacy

The need for an alternative to OPEC oil is obvious, but why do we need to put all our eggs in one basket? Why should such a large sum of money be spent almost entirely on synthetic fuel development? The Department of Energy, created in 1977, has a $12 billion budget and through the '80's, more than $3 billion will be spent on nuclear energy programs; eight times the amount being appropriated for solar energy. The push for synthetic development will not change this ratio and this is disturbing. We should be looking towards the use of a renewable, nonpolluting source of energy--solar power. Carter's synfuel program and the DOE's nuclear program will undoubtedly ease our country's dependence on foreign oil but both are less favorable than solar energy because of public opinion and environmental concerns. Our solar energy program is our most important investment for the 21st century, yet is underfinanced, understaffed and not in time with public opinion. The Solar Energy Industries Association estimates that 11 million homes will have solar hot water heaters by 1985, but the DOE's forecast is only one-tenth that many. DOE's single largest budget cutback for the fiscal year 1979 was a 45% reduction in the solar heating and cooling demonstration program. A 1977 study for the Federal Energy Administration concluded that a $440 million investment in the development of photovoltaic cells would decrease the cost of a peak watt from $15 to between 50 and 75 cents, yet Congress only authorized $88 million for such purchases.

Massive budget expenditures for synthetic fuels and cutbacks in solar energy research just don't make sense. Why should one program be embellished at the expense of another? We need a more balanced and far-reaching approach to our energy problems. Not to just be concerned about the next twenty years, but also about the next 100. Not to just throw money at grandiose programs, but to distribute funds to those programs that show the most promising returns. Our government must develop better interagency communications and work closer with Congress, rather than be at odds with the general public. We would like to see our government learn how to listen better and use better judgement to satisfy our energy needs.

E. R. Auerhan,
Editor

WANTED: ENERGY ENGINEER

As the search for energy escalates, so will the need for personnel trained in the field of energy engineering. Of the 58,000 engineers graduated last year in the U.S., about 12,000 chose careers in energy-related areas. Also, just to staff President Carter's synthetic fuel program would necessitate about 25,000 additional engineers in the next ten years.

The nuclear energy industry promises to play an important role in meeting our energy goals. According to a 1977 survey, more than 40,000 engineers were employed in this field. By specialty, there were about 3300 civil, 7800 electrical and electronic, and 11,500 mechanical engineers. The balance of these jobs were made up of metallurgical, chemical, and nuclear engineers. Over half of these engineers are engaged in research and development.

Engineers are also important to the solar energy industry. Most engineers in this industry completed school in a traditional engineering foction and then took some specialized training at a later date.

It is estimated that 22,500 people were engaged in solar energy work in 1978. According to projections, by 1981 there will be a demand for about 6200 engineers in the solar energy field. These opportunities depend largely, however, on federal funding of research and development projects. Approximately 40 percent of all workers in solar research and development are mechanical engineers. However there is also a sizeable number of electrical, civil, and architectural engineers in this field. Areas of research and development include space heating and cooling, industrial process heat and photovoltaics.

Ocean engineering, which began in the early 60's, is also a growing field. As work continues on offshore oil supplies, tidal power, and ocean transportation routes, the demand for engineers in this field increases.

Ocean engineers are generally specialist. Specialties include structure design, materials and corrosion control, underwater acoustics, thermal energy conversion and ship hydrodynamics. Ocean engineers are employed by local, state, and federal agencies as well as consulting companies. These agencies are involved in projects such as adapting navigation channels for deep draft vessels, coastal resource management, mooring and docking facilities, and maintaing a natural landscape and ecological balance.

As the quest for energy becomes more important and diverse, so will the fields that will be open to graduates of technical and engineering schools. The future promises a wide variety of opportunity which will be available to, among others, graduates of Southern Tech.

Mike Payne

WIND POWER--AN ALTERNATIVE ENERGY SOURCE

Recent economic development in the field of energy and the growing realization that the main sources of energy --the earth's nonrenewable fossil-fuel reserves--will inevitably be exhausted, have led to a renewed interest in the search for alternative sources of energy. Among the renewable sources, wind is considered an attractive energy source because the energy is abundant, pollution-free, often available, and does not cost anything. In spite of these attractive features and the fact that the technology required to produce substantial amounts of electricity from wind is present today, one reason why wind power has not beenutilized on a large scale is the fact that production costs are very high. While the cost of operating and maintaining a wind energy system is minimal, it is the capital cost that is high. For most wind energy systems, capital cost primarily includes the cost of building towers and large rotors with aerodynamically efficient blades.

To compensate for the capital cost of building a wind energy system, it has been proposed in an experiment to use kites to extract energy from the wind. In addition to avoiding the use of high-capital-cost components such as towers and large rotors, the

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Sting Focus

NATURAL GAS: CONVENTIONAL ALTERNATIVE?

Most Washington policy makers are counting on coal to be the main power source for American Industry during the coming decades. The use of coal will double by 1990, says President Carter. At the same time, the use of natural gas has declined 15% since 1973.

But, neither of the two fuels is renewable and neither will solve our long range energy needs. Replinishable sources must be found to meet our long range energy needs. But, the leadtime to fully impliment a new energy system into America's industry is about sixty years--that's the year 2040 if we started today.

We need a reliable and plentiful domestic fuel now to carry us into the next millenium. Oil cannot fit this bill and nuclear power has been bogged down by public opposition and politics. Coal will probably fire our boilers for the next few decades, but coal is dirty and deadly. Its pollution causes some 5,000 premature deaths each year west of the Mississippi. Black Lung Disease, mining accidents take their toll on thousands of deep miners. These harms will increase as we turn more and more to coal.

In contrast, natural gas is a clean and efficient form of power. It causes no health problems and accidents are rare. This gas can be extracted without stripmining or oil spills.

But could we increase our gas consumption if we wanted to without exhausting our reserves? Most experts say yes. Informed, unbiased sources (such as major universities, the National Academy of Sciences, Industry groups, Institute of Gas Technology and the U.S. Geological Survey) agree that America's reserve base of natural gas is from 1 1/2 to 2 times the amount of gas already found.

The United States now consumes about 20 TCF (trillion cubic feet) of gas per year. The decontrol of this fuel made it economical to produce between 20,000 tcf and 50,000 tcf if we need it. At our present rate of consumption, these reserves would last from 100 to 2500 years, according to the USGS, that is from now until the birth of the Roman Empire, if you are counting backwards. Even if we tripled our gas use, we could still produce all we needed in the year 2300 or so. We will have been using a renewable source of energy for at least 200 years by then anyway.

The facilities for processing this fuel already exist, as do the needed pipelines and receptables. Most steam powered plants could switch from oil or coal tomorrow if necessary, without any great costs to industry.

Since no American gas Cartel exists (there are between 5,000 and 7,000 independent gas producers within our nature borders) prices to industry would remain competitive with other fossil fuels. Our massive inflow of imported oil could be reduced significantly. Even though NG won't take care of our love affair with the automobile, it could solve some of our short-term industrial energy needs.

Allen Bearden

WIND POWER

(FROM P.4)

important advantage of using this proposed experiment is that it utilizes the full available potential of the wind.

In order to understand how the proposed experiment will extract energy from the wind, consider the following: The motion of air generates a pull in the rope that holds the kite. On the earth's surface, the rope will be suitably connected to an energy system which will convert the variation in developed force on the rope into rotational energy of a rotor. This system works in a manner that is similar to a two-stroke internal combustion engine.

Whenever a period of calm occurs, the kite will tend to lose altitude. One solution is to fill the empty spaces in the kite with helium gas. Another possibility is to tie a balloon to the kite.

Even though it is difficult to estimate the cost of wind power from this experiment, a rough estimate indicates that for a 100-KW system, the capital cost per unit of energy from this experiment will be less--approximately by a factor of 3--in comparison with the capital cost of one unit of energy produced from other 100 KW wind energy systems.

The facts are that wind energy cost almost nothing after the capital cost and it is abundant, pollution free and often available. We as consumers should become more aware of other available energy sources and utilize them. Because of recent economic developments in the field of energy, it would benefit all of us to start using alternative energy sources and wind is a very viable choice.

Terry W. Drayton

HARNESS THE SEA?

As technology becomes more and more advanced, ideas that were once deemed science fiction become reality. Many former fantasies of science are becoming reality in our search for alternate energy sources. One such idea that sound fantastic at first but is actually quite feasible is the undersea generating turbine.

The sea is a giant reservoir of energy constantly in motion, the sea flows and ebbs, producing a virtually limitless source of energy. Within the oceans lie rivers of current that constantly flow in one direction and produce more potential for power than all the inland rivers combined. With this in mind, William Mouton, a professor of architecture at Tulane University has pioneered the idea of submerging giant, slow-moving turbines in the great ocean currents in order to generate electricity.

Mouton got his idea while watching the Mississippi River in New Orleans. He felt that the potential for underwater generation was there but the output would be too small. Thinking on a larger scale, he turned his attention toward the mighty gulf stream of the Atlantic coast. To fit this mighty underwater river, he designed a generating turbine with 300 foot diameter blades. The unit would be positiively buoyant and anchored at 3 main points on the bottom in order to maintain itself at a level between the bottom and the surface. The blades would rotate slowly in the strong but slow current and drive a generator which would produce electric current which would then be delivered to shore in connecting cables.

The costs involved are very competitive with other alternative energy sources. A generating turbine of the 300 foot variety would have a plant cost of $1230.00 per kilowatt. The cost of the energy produced by it would be 5¢ per kilowatt hour. These figures are better than those for nuclear, coal fired or oil-fired generating plants. For slower currents, however, a smaller version would be advantageous. Although a 245 foot diameter turbine would cost $1500.00 per kilowatt, its energy cost would be only 4.5¢ per kilowatt hour. The smaller turbine would require less current and would perform better in the gulf stream where the main current is 3 knots.

The turbine, could be scaled down even further for shallower areas such as the Torres Straits between Australia and New Guinea where the water is an average of 65 feet deep and the current runs at 5.6 knots. Other prominent current areas include the Kuroshio current of Japan and Benguela off South Africa.

The ideas' most promising feature is that the units produce no waste, there are no dams to build, no alterations of the landscape and they would be completedly out of sight. They are also mobile and could be moved if necessary.

Mouton's ideas are only ideas at present but they have recently received the backing of the U. S. Solar Energy Research Institute. With more exploration and development, Mouton may have a viable answer to our ever-escalating energy search.

Mike Payne

WOOD STOVE BY STEVE

There is an alternative to paying high electric, gas or oil heating bills this winter--and it doesn't involve high technology. Rather, it's a system that kept your grandparents free from chill during the cold months--it's the woodburning stove.

For those who live in a rural--or even suburban--area, this is perhaps the most self-sufficient and economical means of heating a home. Beyond initial investments of an airtight stove (about $500.00) and material for a hearth (bricks and mortar - about $25.00) the amount spent on heating averages $30.00 to $35.00 per cord. And for an adequately insulated (one with an R, or resistivity to heat loss, value of 15 or greater) two-story, three-bedroom house five or six cords of wood will see a family comfortably through the colder times of winter and early spring. (this based on an average

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BURNING WOOD

(FROM P.5)

temperature of 30 degrees F from October to March)

Cordwood can be bought during summer months for as low a price as $30.00, cut and delivered. This means that one cord of wood, which occupies a space of four feet by four feet by eight feet, is dumped loose on the lawn of the purchaser. It is usually left cut in four foot lengths. For the wood to be used in a woodstove, it must be cut into sixteen inch lengths--two cuts with a saw on a four-foot stick will yield three stove-sized pieces.

If the wood is greater than six inches in diameter, it should be split. This can be done by the hale and hearty by using a maul and splitting wedge; but, for those who are less physically ambitious, a hydraulic splitter can be used. Splitters can be rented (as can chain saws) from any of the larger hardware stores at very reasonable prices. After the wood is cut and split, it is stacked and "seasoned", or dried. It can then be stacked or piled in a basement area, ready for use.

The location of the woodstove itself is of great importance. A central location in the house, away from walls that are next to outside air, provides maximum heating effectiveness. A good choice here would be a dining room or living room. When operated the stove would radiate heat in all directions, thus insuring a constant temperature for points equally distance from the stove.

Venting the stoves' gases is no problem if the stove is placed near an operable (not closed or blocked in any way) chimney. Here the chimney to be used is sealed off at the fireplace with brick of ferrous metal. An opening in the fireplace seal large enough for the stovepipe to pass through is made. When the pipe is set, the opening is made airtight, thus preventings noxious gases from entering the room. If the chimney is lined, the clay-brick liners will retain much of the heat that passes out as exiting gases, thereby adding to the heat content of second-floor rooms. Lining a chimney can be done by a reliable mason for roughly $250.

The reader may, at this point, argue that woodburning seems costly. Thus far, expenses have totalled $700 for a first-year of wood heating. Compare this to five year of heating with oil, at $300 per winter for fuel oil (a modest figure compared to East Coast averages.) Five year of oil, then, with no maintenance to the burner is $1500. Five years of woodburning is $1420. Clearly, woodburning will pay for itself in this five-year period--and in very cold climates, it will pay for itself in less time.

Heating with wood is NOT for everyone. It is certainly hard to justify the expenses of woodburning if one is a transient, apartment-dwelling Atlantan. Many people, having led a sedentary life, will balk at the through of the labor involved in putting a stove in. And there is a segment of population that would not do anything as un-chic as burning wood to stay warm, who would not purchase a wood stove--unless, perhaps it had a green alligator embossed on it.

But for those not averse to physical labor, who are willing to do for themselves instead of simply complaining about the high price of petroleum products, who are willing to spend some money in order to save much more, then woodburning is the answer to high heating bills and dependency on others.

Steve Cantrell

SOLAR ENERGY AND ITS FUTURE

A pessimistic outlook for gas and oil availability, environmental concerns about coal-fired and nuclear power plants, and rising energy prices are causing solar energy to be looked upon as a major source of energy for the near future.

But is solar energy practical? At the moment it is not competitive with conventional sources because energy from the sun is not a very strong source, requiring rather costly collection and storage systems.

With the rising cost of existing energy, solar power becomes more attractive for two reasons. The energy is a renewable source and it is kinder to the environment.

There are a few reasonable ways of collecting solar energy. They include solar power plants, ocean thermal energy conversion plants, photoelectric cells, and photosynthesis.

At the highest intensity, solar radiation in the visible wavelengths is one kilowatt-hour per square meter. The use of large collectors is intermittent on the surface of our planet. The energy received varies because of weather and the tilting of the earth on its axis.

Lack of sunshine during parts of the day and at night causes the overall size of the plant to be larger. The plant must over-collect energy during the day and store it at night. Energy storage is not a well developed science yet, so pumping water behind a dam and lead-acid batteries are the most common storage methods in use today.

In the southwestern United States, sunshine amounts to about five kilowatt-hours per square meter per day. This amount of sunshine and the low-cost availability of land in the southwest makes the area ideal for power plants.

Two to sixteen percent of one million square miles in the southwest is potentially available and suited for use as a solar power plant. This is 4 to 36 times larger than is needed to generate the current national requirements.

But in the southwest there is a lack of water. This is a major constraint on conventional power plant cooling technology. Water is not all that essential, as dry cooling towers can be used, but they lower efficiency by about ten percent.

Most solar power plants consist of an array of mirrors or collectors focused on a central receiving tower. Inside the tower, the sunlight generates superheated steam. A fairly conventional steam power plant can be used to convert the steam into electric power.

One alternative idea involves the collection of solar energy throughout the collector field, that is, in distributed receivers. Then generators can be used instead of one large one.

Another source of energy is tropical oceans, which store tremendous quantities of solar energy. Industrial nations such as the United States which have a tropical ocean nearby could get a major portion of their energy from converting the heat in the oceans. Ocean Thermal Energy Conversion or OTEC is the term used to describe this kind of device.

In an OTEC plant, the heat input is the surface water of the tropical oceans. Cooling is provided from ocean depths of 2,000 to 3,000 feet. A plant of maximum size would produce about 100 megawatts, only one-tenth the capacity of a modern nuclear or fossil fuel plant. More power would be obtained by having more plants rather than larger plants. These plants would have to be separated by about 10 miles, so one does not affect another.

OTEC plants are very clean, unpolluting plants, but there may be other problems. No one knows the climatic impacts of lowering the temperature of the ocean by one or two degree farenheit.

A major advantage of OTEC plants is the fact that they do not introduce new costs. The main capital costs are for large boilers and condensers.

The effeciency is very low in these plants, about two percent as compared to 38 percent for modern fossil fuel plants. However we do not pay for the fuel; hence effeciency is not as important.

The next source of energy is the photoelectric cell. When photoelectric energy is discussed, one must think of a solar array, not just a single cell producing energy. This solar array must supply the desired current and voltage levels so the user can obtain the energy in a regulated form.

Photoelectric solar energy conversion systems transform light directly into electricity. These systems provide very stable features: absence of moving parts or matter down to the atomic level, long life and maintenance, operation at environment temperature, and in most cases, without special cooling provisions.

The most important feature of the units is the fact that they can be used on site of the location where used. They can also be put on rooftop to avoid interference with other land uses. Also, the most suitable material for cells is silcon, which is the most abundant solid element on earth.

It is quite likely that photoelectric will supply the major portion of the electric power to be obtained solar energy. But the main problem is the development of low cost techniques for making the cells and the energy storage means.

(CONT. P. 7)

The Parallax View

October 24, 1980

STING POLL

QUESTION: WHAT IS YOUR OPINION ON THE USES OF ALTERNATIVE ENERGY SOURCES?

1) Because of the ever-increasing cost of oil and the increasing cost of public activities, I feel we should be ready and willing to accept alternative energy sources such as solar, wind and wood power. You can't place a price on the energy gained from the sun or from the wind; therefore, no one is willing to push these ideas because they can't make a buck. I think the interest of mankind should be placed first rather than man-checking account.

Larry T. Fraiser

2) Alternative energy sources should be given a much higher priority than they have now. Now is the time to work towards solutions, and not to wait for an acute shortage

C. Cox

3) Alternative energy resources should be researched to the limit. It is what is going to keep this country going when our oil runs out or is CUT OFF. There are many other ways to obtain energy and all must be considered and researched.

D. Fox

4) Due to the USA's ever increasing dependency on foreign oil I believe we must use any and all alternate power sources. I believe that nuclear power is our best option because we presently have the technology.

Leonard Pease

5) Solar power will not be supported by the present administration because they cannot figure out a way to get a tax man between the sun and the peasants to tax us for the energy we use.

R. Mcauley

6) The use of alternate energy sources such as solar and geothermal power in the future will be as commonplace as the use of petroleum today. Other sources, such as nuclear and hydroelectric, also have the potential for growth. With the great controversy surrounding the use of nuclear fission emphasis should be placed on fusion power and the development of large-scale fusion plants.

All in all, alternate energy development in the future should be centered on solar and fusion power, for those two have the greatest potential for production of power in the oil-hungry future.

Mike Bernier

7) It is a good idea. The government needs to support sources like solar, geothermal and wind energy the same way it has supported nuclear energy (presently the government spends over 80% of all its energy research and support funds on nuclear power).

I don't agree with the editorial in the STING last week supporting the nuclear power system as it is today. While nuclear energy is a viable source, the safety at this time is questionable. Not one single reactor has complied 100% with all the governmental safety requirements. Also, the NRC is little more than a political football.

What I'd like to see is an end in nuclear fission and have the government instead concentrate the money allegated to nuclear funding on fusion energy. This process, once it is fully developed, will be cheaper, safer, and produces less waste and not be dependent on a relatively scarce material. (not counting the radioactive material created by Lybrid reactors, the U.S. only has enough known radioactive material to continue producing fission energy for approximately 40 years.)

As you've probably guessed, I'm not a strong advocate of nuclear energy. Eventually, solar power will be our primary source of energy. The sooner the government throws its weight behind solar research, the sooner this will happen.

Scott Robertson

SOLAR ENERGY
(FROM P.6)

Concentrators also present problems. The system must be on a accurate tracking system. Also the tracking system may be involved with much greater costs than the collector itself. When using a concentrator, the cells sometimes have to be cooled causing an efficiency loss.

Another way to make use of solar energy is through photosynthesis. Growing flowers or green plants has some distinct advantages. No collectors or new technology is needed and cost is limited to land use and water availibility.

The way energy is extracted from the plants is by chemically changing them into methanol, methane, or hydrogen. These fuels are easily converted into energy.

The major limiting factor of photosynthesis is its relatively low efficiency. Even under favorable conditions photosynthesis converts no more than one to four percent of light incident upon it into chemical energy.

Another limiting factor is the fact that it takes about 500 tons of water to produce one ton of dry plant matter.

In conclusion, solar energy is the future of the United States and the rest of the world. Thousands of times more solar energy flows through earth's natural system than fossil fuels.

It appears that fossil fuels can only provide a small fraction of the energy needed to support our civilization in the next few decades. So alternative energy sources must be developed for long term use. The candidates are solar energy, coal, nuclear fission, and thermonuclear fusion.

Most people tend to think coal and fission are the path we must choose. But practical fission for commercial use it probably 50 years off and coal has inherent problems such as pollution.

In developing solar energy, we should pursue regional strategies. In the southwest there should direct collection. Producing chemical fuels from plants in the midwest would be the most practical. On the Great Plains, windmills should be put to work. The Gulf of Mexico is an ideal place to put an ocean thermal gradient generator(s).

A high priority should be placed on making solar energy the principal replacement for fossil fuels. Just how much we can depend on solar will be learned within the next few years in order to have a bright future.

Ken Shaw

"Those who wish to reap the benefits of freedom must undergo the fatigue of supporting it."

Thomas Paine

PHOTOVOLTAIC CELLS

Since the first experiments with "photovoltaics" or solar cells in 877, man has been engaged in a struggle to utilize time, money, and technology to harness the sun's immense power. A solar cell capable of using sunlight to produce an electric current consists of two or more pieces of semi-conducting material sandwiched together. These sandwiches of semi-conducting material are made in distinct layers alternating between two types. The "N" variety is negatively charged, and the "P" variety is positively charged. In between these layers there is an electric field called the "heterojunction." This field allows the free electrons of the positively charged plate to flow to the "energy caps" of the "N" plate. This flow of free electrons produces and electric current.

In order for solar cell production of electricity to establish itself as a viable energy resource,its cost per kilowatt hour must be reduced to 1/30 of what it is today. To reduce the cost of solar energy, the cells must be more efficient and the manufacturing techniques must be improved. Although the first solar cells were less than one percent efficient, the cells

(CONT. P.19)

AN SGA UPDATE

(FROM P.1)

Another project that the SGA is working on is the Executive Round Table. The SGA President, John Cochran, has visited Kennesaw College and Georgia Tech to investigate their Round Tables. The Executive Round Table is a forum where students, faculty and industry meet to ask and answer questions about industry and curriculum and how the two serve each other.

Presently the SGA is involved in a University System organization called Student Advisory Council (to the Board of Regents). So far they have discussed the idea of setting up a core cirricula in the entire University System. The purpose would be to help students when transferring not to lose any credits for transferrable courses. Also, they would like to set up a system to inform of a tuition hike.

If you are interested in being a member of the SGA, there are several positions open: night school representative, a representative from both dorms, representative at large, a Winter-Summer Co-op representative, and a representative from Textile and Fire Science. To qualify, you must maintain a grade point average of 2.00, have 36 quarter hours and have attended STI for two quarters prior to taking office. Petitions are located on the door of the Vice-President of the SGA in the Student Center.

However, if you are just an interested student and would like to attend the SGA meetings, by the SGA's Constitution, you are entitled and welcomed. Meetings are held every Tuesday at 5:15 p.m. Students should become more active in their student governing body.

Terry W. Drayton

(FROM P.1)

One source of tutoring that can be obtained through the Counseling Office is from the Black Student Association. Members of the BSA in good academic standing were asked to help fellow members who had academic problems. Recognizing their full potential, the BSA met with Ms. Anderson early this fall, and will be extending their tutoring services to the campus at large.

Other programs involve seminars and workshops. Subjects include the "problems of working-student-parents" and "professional image" workshops. An example of the latter was the Women's Professional Image workshop, which was held on October 7 at Southern Tech. The workshop, which was a hit with women students, faculty, and staff, will be repeated in the forthcoming quarters. A similar workshop for men will also be introduced.

In addition, an update of PREFACE will be offered this winter. The program, entitled "Southern Tech: A Second Look" will help students assess their first quarter at STI, as well as understanding and coping with problems they have encountered. Participation is open to all students staff and faculty of STI.

We welcome Ms. Anderson and her counseling abilities to Southern Tech and wish her success in her new job.

Steve Cantrell

(FROM P.2)

unkempt, in a unemployment line, bemoaning their need for a check from the state. It's Big Business, raising the prices on necessary commodities--it's the unions, with higher wage demands. It's all of us.

So, hey---let's get with it. As we have done every four years since 1789, let's choose a man of heroic stature to be our national leader, to be a scapegoat and bearer of problems, to listen to all the American subcultures wail and whine over their most miserable plight. Let's find one man who'll take care of 220 million individuals. It shouldn't be too hard.

As Judy Collins, folksinger, would put it:

"Send in the clowns
Oh where are the clowns
Don't bother--they're here."

Steve Cantrell

(FROM P.3)

Dear Editor,

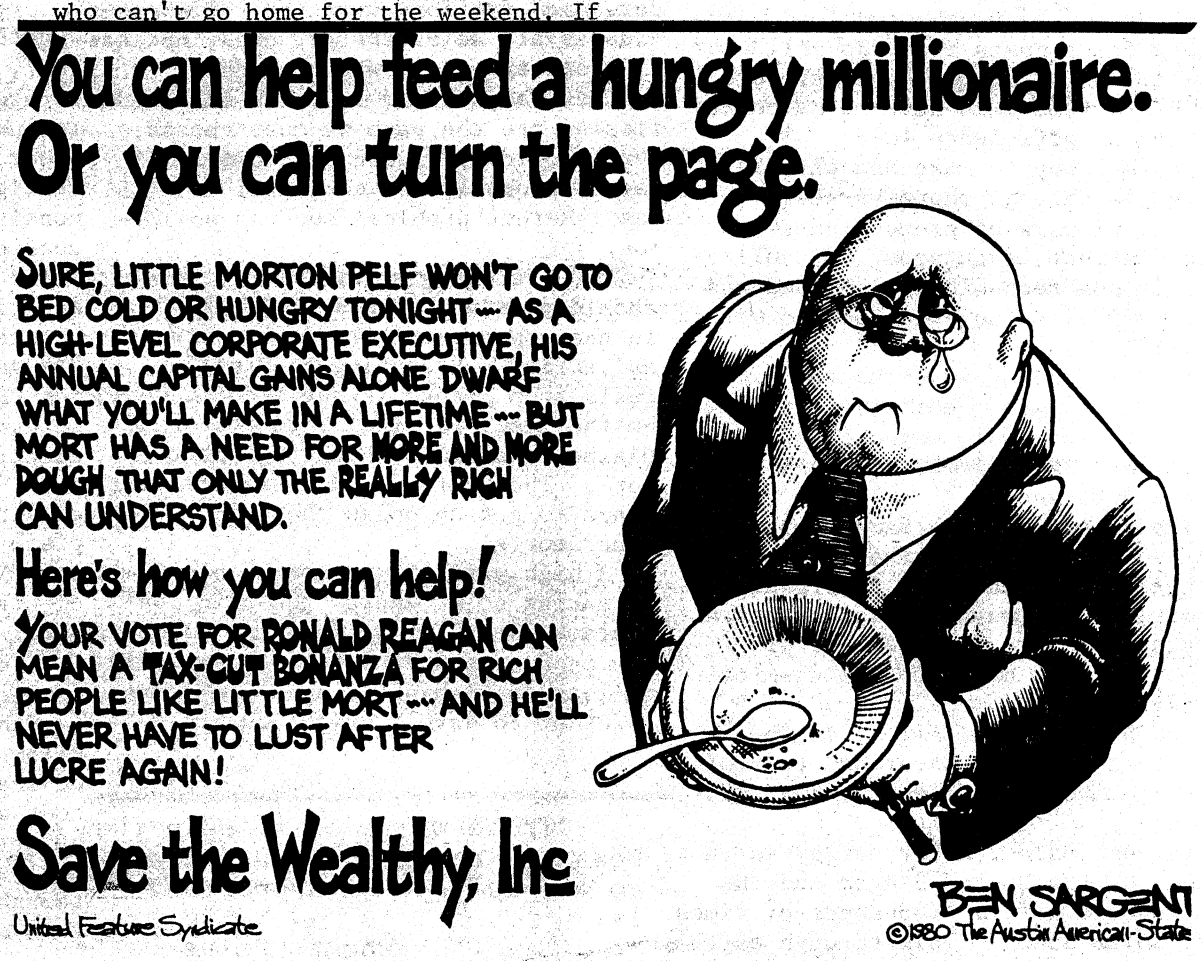
I'm writing you to let you know the downfalls of our student activities. We need more student activities for people to enjoy. We don't have enough activities going on to make the people happy. We need a program to raise more funds for the basketball, and the baseball team so they can travel better to out-of-state games. The college is a very nice college, but needs a little help in these areas. We need to have more dances on the weekend that will keep the students on campus. You need this especially for the out-of-state students who can't go home for the weekend. If you would kindly help us in these areas, we would deeply appreciate your service.

Ronald Ward

Dear Editor,

I think the Basketball team here at Southern Tech needs more funds to support the team. The team has been successful for the last four years in a row, winning the district playoff four years in a row, winning the conference playoff three out of four times. The team has been very successful but the fans and the faculty don't seem to think so. For example, last year at one of the home games we had fifteen people in the stands. It was down-right discusting. If I wasn't a player I sure would back my team 100% each game. It is a good feeling to hear about your school in athletics as well as academics. So this year all you Hornet fans get up and give a cheer.

Richard Stallworth



SPORTS CAR FEVER OR HOW I LEARNED TO STOP WORRYING AND LOVE THE SMELL OF BURNED MOTOR OIL

I like old things. Old houses, old books, and old cars all seem to have so much character and flavor when compared to their modern counterparts. I don't know how I started liking old houses and books, but I do know how I started liking old cars. You see, I'm a reformed car nut. I say reformed because my particular case of car nut's disease is presently in remission. Not cured altogether, understand but under control. I don't foresee a relapse in the near future, but once in a while I like to test my resistance. To do this, I wander through an automobile wrecking yard. This is sort of like an ex-smoker handling and sniffing an unlit cigarette, just to see if it still interests him. Recently I paid a visit to one of my favorite junkyards and to make this visit an acid test, I went to one that specializes in old British sports cars.

God, I once loved old British sports cars! Still do, in the back of my mind. But, now I'm older and wiser and I realize that, by golly, some cars are just easier to live with than others. That being the case, British sports cars fall somewhere between Farrah Fawcett and Rasputin. One minute you can be breathlessly in love and the next minute the damn thing will try to kill you! I know. I've owned one. Still do.

Anyway--back to my story . . . I walked into the yard one sunny afternoon to see if there were any new arrivals. There always are. Just off the front row I spotted a recently hauled in Jaguar. An early seventies model. A fastback coupe. Even wrecked and rusty it was still beautiful, just like Farrah never really ugly. On the lid there's an emblem that says "V-12," for the twelve cylinder engine. V-12. V-12!! Think about it! Heck, only fighter planes had V-12 engines in them. For a true afficianado of English motordom, the resemblance doesn't stop at the engine. The interior--or cockpit--looks like something that was involved in the Battle of Britain. There must be a hundred gauges and dials on the dash panel. And where they leave off, the rocker switches begin. There's gotta be dozens of rocker switches. And if anybody still doesn't feel like the thing should have wings instead of doors, just stick your head through the window and sight down the nose of the car. By golly, that hood must be twenty feet long. All it needs is a big, four-bladed propeller on the end of it. Contact!

Picking my way on through the yard, I passed more twisted hulks from a past generation. None of these cars are really ancient understand, just old enough to look alien on the street, and real lonesome out here. Just as the Jaguar stood out among the more numerous MG's and Triumphs, another familiar shape caught my eye. An old Healey 3000.

Austin-Healey. Now there was a britsh sports car for you. It had the round and bulbous shape that was believed to be aerodynamic in the mid-fifties when it was designed. They were British all right. They'd overheat in a New York minute if the weather was anything more than mildly warm and they were so low to the ground that you could tear the whole exhaust system off just by running over a crushproof Marlboro box. But when you got out of the car to salvage the pieces and let your eye move down the seductive curve of those fenders, you knew the car was worth all the grief. You had to love it. You could not help yourself. And even looking at these gutted remains almost made me hear that sound. That pleasant, subtle, yet powerful rumble that old long

(CONT. P.19)

What's happening

HAPPENINGS

OCT 23--CAB Cinema presents "11 Harrow House", 4 & 9 p.m., Student Center Ballroom, admission 50¢.
OCT 27-29--STI Eight Ball Billiards Tournament
OCT 28--Regents Test
OCT 30--STI Magic Show featuring Kramer
OCT 31--CAB Cinema presents "Logan's Run" 4 & 9 p.m., Stud. Cen. Admission: 50¢
NOV 6--STI Talent show featuring comedian A. Whitney Brown
NOV 8--Goat Day

MASTER OF CEREMONIES
TO APPEAR NOV.6

A. WHITNEY BROWN

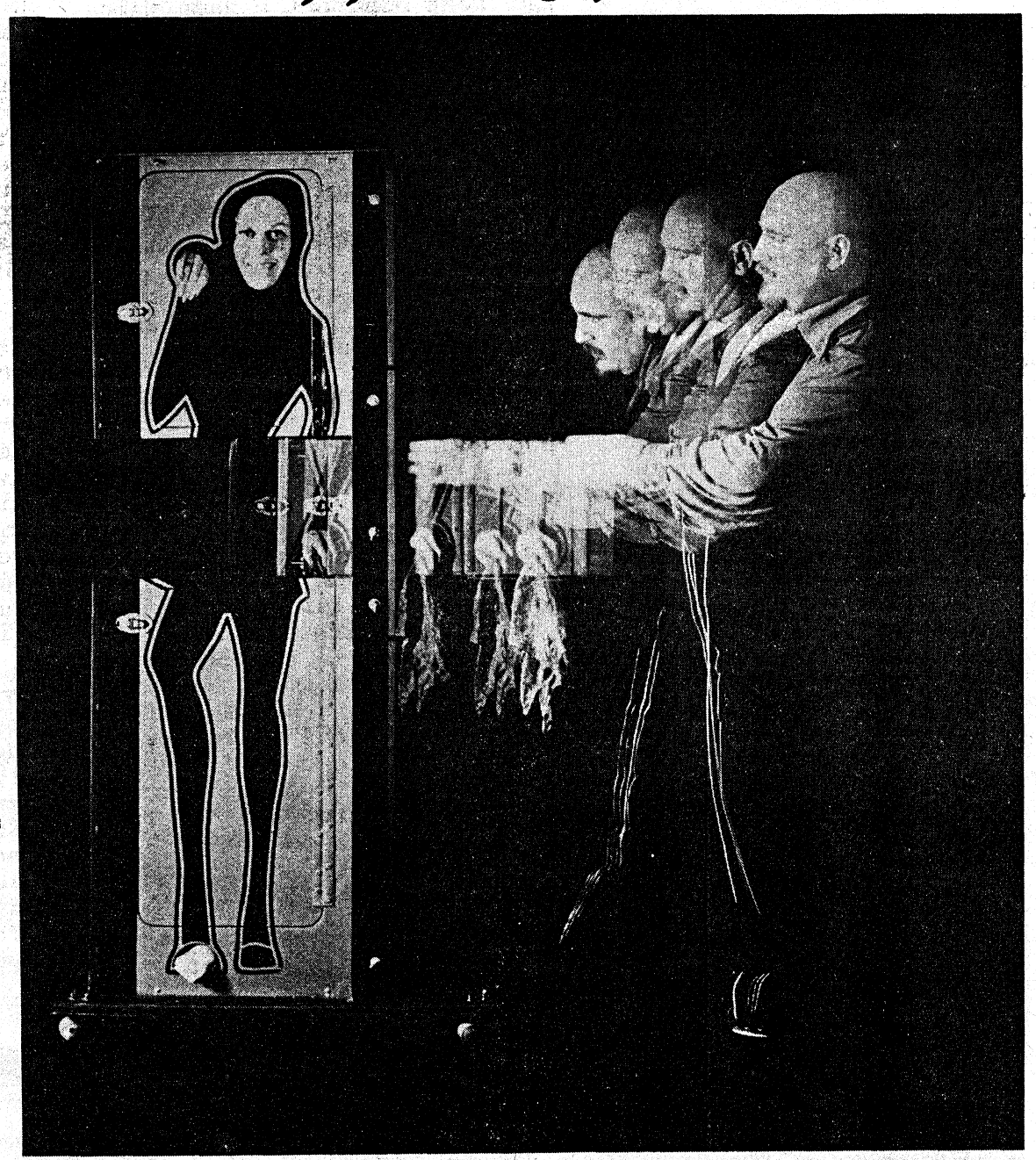
A. Whitney Brown is a man with a well honed sense of the ridiculous. It is a quality that comes naturally to one who can trace a successful career in comedy back to the time he learned to juggle while picking oranges for a living.

How does one progress from migrant worker to entertainer? A. Whitney Brown made his debut at the absolute bottom of the show business ladder; the sidewalks of San Francisco. Doing shows on the street was his unorthodox solution to the perennial performer's problem of how to get exposure. Using a combination of juggling tricks and deadpan comedy, he learned to transform a busy street corner into an intimate theater, and curious crowds of passers-by into an appreciative audience.

"Brown gathers crowds to him like a warm, comfortable coat," wrote one reporter who saw him. "They seem to come from nowhere." About street performing, Brown himself says, "Collecting a crowd is the easy part, but people only stay when they are really being entertained. That's why I like the street, it's honest."

But Brown soon found more comfortable quarters in which to perform. His reputation as a comic juggler lead to employment at fairs, schools, and conventions. It also lead to a change in his comedy style. "Comedy is like a language," says Brown, "and when you work outside you have a very limited vocabulary. Inside, people are more concentrated, so you can say more."

But it wasn't long before Brown applied himself to the most fluent form of that language; stand-up comedy. Writing and performing his own material he was twice a finalist in the International Comedy Competition, and has achieved national explosure over the Showtime television network. He is currently touring colleges and performing in night clubs. Of his rise from street to stage, Brown says, "The best part hasn't changed at all, and that's the feeling of having everyone around you laughing at the same time. That's the greatest thing there is." Watching him perform, you have to believe it.



KRAMER AND CO.

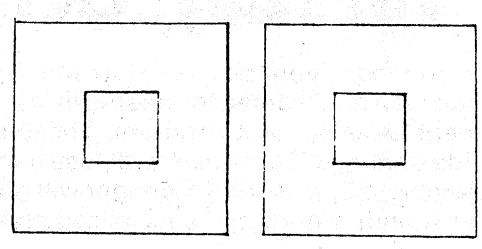
Not just anyone can float a woman in thin air . . . make a rabbit appear from an empty top hat . . . or cause objects to vanish into space. Bob Kramer can! But then again, he's not just anyone. He is a member of the Society of American Magicians and International Brotherhood of Magicians and is regarded as one of America's top illusionists by his peers--a magician's magician.

Bob's career in magic began as a hobby in his early teens. Starting with simple sleight-of-hand tricks, he soon grew into larger and more complicated illusions. Somewhere along the line he decided to make magic and performing his life's work. Since then he has amassed over $75,000 in full-scale magical effects--many of which he created and perfected himself.

Bob has built Kramer & Company into a multi-sensory experience that is filled with audience participation. In it, Bob shares the stage with is wife, Judi, and his assistant, Reggie. The show features the world's most spectacular full-size illusions, including: THE CREMATION; METAMORPHASIS; LEVITATION; ZIG ZAG LADY; SWORD CHAMBER and numerous others.

23 STINGERS

from de Caux



Above are the plan and end elevations of a solid object. There are no dotted lines missing. What does the third or side elevation look like?

All solutions as usual to my box in the Mathematics Department or directly to my office, 256b. Old STINGERS that have not yet been solved are in the show-case outside the Mathematics Department.

PLACEMENT & CO-OP

PLACEMENT AND CO-OP OFFICE

The following campus interviews are scheduled for the week of October 27:

Monday, October 27, Kendall Company - EET, MET, IET, TET
Tuesday, October 28 - Florida Power and Light Company - EET
Tuesday, October 28 - Levi Strauss Co. - IET, TET, AMET
Wednesday, October 29 - McDonnell Douglas Corp. - EET
Wednesday, October 29 - Southern Bell - All degrees
Thursday, October 30 - Oxford Industries - IET, TET, AMET
Thursday, October 30 - Southern Bell - All degrees
Friday, October 31 - Southern Railway - CET, EET, MET
Friday, October 31 - Georgia Power Co. - EET, MET

These notebooks are posted for sign-up one week before the company is coming to the campus. Please sign up as soon as they are posted so we will have an indication of response when the company calls to check. Also, be sure to leave a copy of your resume in notebook if you sign up.

GRADUATES interviewing this quarter should register with placement office and furnish us a copy of your resume. Information on resume preparation is available in placement office, room 125.

The following companies have schedule campus interviews for CO-OPS:
Monday, October 27 - Reliance Electric Co. - MET
Wednesday, November 19 - Southwire Co. - MET
Tuesday, October 28 - Turbitrol - EET
Monday, November 3 - Georgia Power Co. - CET, EET, MET
Any student interested in beginning a cop-op program should see Mrs. Doyle or Mrs. Cochran in Room 125 of Administration Building.

DISCRIMINATION

Southern Technical Institute is an equal educational and employment opportunity institution and does not discriminate on the basis of race, color, sex, religion, creed, national origin, age, or handicap.

If you feel that you are subject to discrimination as identified above, you should contact one of the following:

Dr. Charles A. Stevens
Acting Dean and Affirmative Action Officer
Room 117, Administration Building
(404) 424-7238

Dean Charles Smith
Dean of Students
Room 115, Administration Building
(404) 424-7228

Ms. Barbara Anderson
Counselor
Student Center Office
(404) 424-7226

CLUBS & ORGANIZATIONS

TKE

We are only a few weeks into the quarter and TKE is really on the move. Our chapter has 18 new associate members for the quarter. Most of the thanks goes to Steven Cobb, our rush chairman. The brothers also completed a work project for $300 and helped the Cystic Fibrosis Foundation in a radioathon they held in conjunction with WLTA radio. We are already planning another work project for the weekend of October 25 at Lake Lanier. Also our 2nd Annual Square Dance for the Scottish Rite Childrens' Hospital is coming up this quarter too. We have even found the time to initiate two new brothers from a past pledge class, Kevin Spake and Ted Schwartz. New associates for Fall are:

Harry Sailers
David Rogers
David Harlin
Mike Boyd
Jeff Thompson
Leon Cramling
Mike Musselwhite
William Gatling
Patrick Phillips
Scott Cramling
Jeff Griffin
Jay Harris
Jon Stubblefield
Jack Lewis
Derrick Robinson
Curtis Jones
Otis Turner
Mitch Statham

ROTARACT

All students are cordially invited to the next meeting of the ROTARACT club. Rotaract is the college-level of the local Rotary Club.

Rotaract promotes international concern and understanding as well as undertaking community service activities.

Our next meeting will be held on November 3 in Room 119 of the Student Center at 12:00 noon.

ALPHA XI ALPHA

ALPHA XI ALPHA welcomes everyone to the new school year. We would like to thank all the fraternities for the invitations to their Rush Parties. Special thanks goes to the TKE's for the banners they had made for us. Also special thanks goes to Pi Kappa Xi for the flowers and the party. We had a great rush. Three cheers go to Kaye Fowler, our Rush chairman, who did such a great job. Special thanks goes to all those who supported and helped us. Our new pledges are:

Tina Brininger
Kathy Madison
Caroline Melton
Jea Summers.

During the summer, Elaine Parker went to Denver, Colorado, to Alpha Xi Alpha's International Convention. (she really enjoyed the flying W-Ranch)

Brenda Blocker worked the summer at Alpha Xi Alpha Camp Schelt for under privileged children (in West Schelt, British Columbia) Brenda was one of 9 - Alpha Xi Alpha's chosen from around the country to work there.

IEEE

IEEE meeting will be held Tuesday October 28, 1980 in Room 413. A film presentation about media's distorted view of nuclear power will be shown.

COLLEGE STUDENTS NEEDED for company expansion must be 18 or over, will train, no experience necessary. Start 6.25/hr. 952-9388 call 10 a.m. - 2 p.m. ONLY.

FOR SALE: skis, Rossignol FM 175 cm. Salomon 444 Bindings with brakes, Kastinger Royal Boots, mens size 11 1/2, K2 polies, nylon cover. All purchased new in December and used very little. Over $300 new. Sacrifice for $200. Call 433-2987 after 10 pm weekdays. Keep on trying if no answer.

BATHTUB RACING ASSOCIATION

The BRA will meet Tuesday at 12:00 noon in Room 120 of the Student Center, everyone is welcome.

FOUND--Man's TIMEX watch. Call and identify. 971-0741.

ASME

The ASME will have a presentation on "Hand Gun" on Tuesday October 28 at 12:00 noon in room 601. The speaker will be Mr. Milton of the MET Department. All MET's welcome.

AIIE

On Tuesday, October 28, 1980, at Noon, in Room 266 of the classroom building the Southern Tech Chapter of the American Institute of Industrial Engineers will present the NBC TV White Paper entitled, IF JAPAN CAN, WHY CAN'T WE?

This television program, originally shown in June of 1980, explores the total concept of economic productivity and effectively compares productivity methodology in Japan and the United States. The Program presents on-site productivity improvement illustrations in both nations and also interviews the leading exponents of productivity management.

On October 10 1980, Leroy Gillette, President of the American Institute of Industrial Engineers presented a special journalistic achievement award to NBC News for their efforts. Industrial Engineering and IE Technology are proponents of all activities that increase the producitivity of our society. AIIE believes that communicating information such as this to the public fosters increased producitivity, by explaining the effects of production on the quality of life in a free society.

All students, AIIE members, and Faculty are invited to attend this special screening.

NEW FACULTY MEMBERS

VOTING PRIVILEGES

This notice is to inform you of the Board of Regents policy on student voting privileges:

"Students are encouraged to vote in all federal, state and local elections. A student whose class schedule would otherwise prevent him or her from voting will be permitted an excused absence for the interval reasonably required for voting."

This policy should not be interpreted to mean that election day is a student holiday. It is reasonable to expect that students can find time to vote which does no conflict with class schedules. Under unusual circumstances students can receive an excused absence in order to vote. Please see your instructor in advance if you must miss class on election day in order to vote.

This notice is a reminder to all students who are registered to vote in another community of the necessity of applying for an absentee ballot.

VALIDATION STICKERS

Validation stickers are now available and can be picked up in the Information Office in the Administration Building. It is necessary that ALL students are in possession of their validation stickers.

EVENING CAREER PROGRAM

LOCKHEED--

Will be held Wednesday, October 29, at 6:30 PM in the Student Center Ballroom. All students, graduates and faculty members are invited to attend this program. Graduates planning to interview with Lockheed this quarter definitely should attend.

Light refreshments will be served.

FINAL EXAMINATION EXEMPTION CARDS

Final Examination Exemption Cards for Bachelor Degree Candidates for Fall Quarter 1980 graduation will be available in the Registrar's Office from October 27 thru October 31.

Sam J. Baker
Director of Admissions
Registrar

8-BALL TOURNAMENT

There is an 8-Ball Tournament scheduled for October 27-29 (Monday - Wednesday). It will start at 5:00 PM and will run til 11:00 PM each night. It will be in the Recreation Room, lower level of the Student Center.

DAYLIGHT SAVINGS ENDS

According to astronomers at Fernbank Science Center, Daylight Savings Time will end on Sunday, October 26 at 2:00 a.m. Clocks should be set BACK one hour.

Standard time will continue until April 26 at 2:00 a.m. when we again push our clocks FORWARD one hour to begin Daylight Savings Time.

Among the faculty members new to Southern Tech this Fall is Dr. James Kropa. Dr. Kropa comes to our Math Department from Clayton Junior College where he taught for five years. Born in Atlanta and a graduate of Emory University, Dr. Kropa states an interest in teaching students who are oriented toward technical degrees.

DR. VIRGINIA HEIN--HISTORY

A native Atlantan who has been teaching history here for the past two years, Dr. Hein has just begun teaching on a full-time basis. Dr. Hein recieved her PhD. in History from Georgia State University after raising her family. She likes the atmosphere here, citing the difference between the downtown urban atmosphere and that of Southern Tech. Dr. Hein spend her summers in England whenever possible as English and European history are her special interests.

Professor Youngblood of the AET Department is a 1974 graduate of STI. He has recieved an MBA from Ga. State and became a registered architect in 1976. Currently, in addition to teaching, he is the head of his own firm and has several jobs in progress. He also is a member of the American Institute of Architects.

DR. SANDY PFIEFFER--ENGLISH

Dr. Pfieffer.comes to Southern Tech from the University of Houston where he taught technical writing. He recieved his PhD. from Kent State University in his home state of Ohio. He has worked summers as a communication consultant for an engineering firm. He also edits reports for these firms and conducts seminars. Dr. Pfieffer likes Southern Tech and Atlanta as compared to Houston and looks forward to living here. Dr. Pfieffer also likes the outdoors and is renovating a cabin in the mountains of North Carolina.

(CONT. P.14)

Sports

FLAG FOOTBALL RESULTS

October 7, 1980	
Geechees 32	Sigma Nu 7
Muffdivers 1	Sigma Pi 0
October 8, 1980	
TKE 8	TKB 27
AXA 33	No Names 14
October 9, 1980	
BSA 12	ROTC 23
Wizards 14	BSU 16
October 13, 1980	
TKE 0	Muffdivers 32
Geechees 28	Who's 27
October 14, 1980	
BSU 0	BSA 28
ROTC 14	Lamda Chi Alpha 22
October 15, 1980	
Who's 34	TKB 36
No Names 20	Sigma Pi 0
October 16, 1980	
Muffdivers 14	Geechees 34
Wizards 14	Sigma Nu 51
October 20, 1980	
Lamda Chi Alpha 30	TKE 8
Who's 1	BSU 0

FLAG FOOTBALL SCHEDULE

October 27, 1980
- Sigma Pi vs. TKE
- BSU vs. Sigma Nu

October 28, 1980
- AXA vs. BSA
- TKB vs. ROTC

October 29, 1980
- Wizards vs. Sigma Pi
- Geechees vs. No Names

October 30, 1980
- Sigma Nu vs. AXA
- Muffdivers vs. TKB

November 3, 1980
- Who's vs. No Names
- TKE vs. BSA

November 4, 1980
- ROTC vs. Wizards
- Lamda Chi Alpha vs. BSU

November 5, 1980
- TKB vs. Geechees
- Who's vs. Sigma Nu

November 6, 1980
- BSA vs. Muffdivers
- Sigma Pi vs. ROTC

November 10, 1980
- Wizards vs. Geechees
- Muffdivers vs. Who's

November 11, 1980
- BSU vs. TKE
- Lamda Chi Alpha vs. TKB

November 12, 1980
- Sigma Pi vs. BSA
- Sigma Nu vs. ROTC

November 13, 1980
- No Names vs. TKB
- TKE vs. Geechees

November 17, 1980
- Sigma Nu vs. TKE
- Wizards vs. No Names

November 18, 1980
- Who's vs. BSA
- ROTC vs. BSU

November 19, 1980
- Lamda Chi Alpha vs. Sigma Pi
- Muffdivers vs. Wizards

INTRAMURALS

In talking with Intermural Director, Ron Wofford, he mentioned how they had a great deal of difficulty in the quality of officiating.

So, Ron had a meeting on Oct. 15 to explain the rules of flag football. The attendance was good. The officiang on the football field has improved as a whole.

Ron reminds everyone that football games are held Monday - Thursday at 5:15. Everybody is invited to watch some exciting games.

Also, anyone interested in a ladies volleyball team should contact Ron.

Ken Shaw

ROAD ATLANTA

Road Atlanta will be hosting, for the eleveth year in succession, the prestigious Champion Spark Plug Road Racing Classic, October 20-26. The concept is designed much like the Olympic program whereby the best of the best are able to compete. A field of 660 cars will be competing in 22 races.

Some 8,000 amateur drivers in the United States compete all year trying to accumulate enough points to be invited to the National Championship. Only the best road racers in the Sports Car Club of America receive the invitation.

There are 22 classes of SCCA amateur competition. Drivers are grouped in seven geographical regions. At the end of the season, drivers who are in the top four in national point standings in their class and region receive an invitation to compete in the event.

Whatever a driver has established or tabulated pointwise throughout the year means nothing once he arrives at Road Atlanta. Whomever wins here, is the National Champion and receives the coveted gold meddallion.

Practice begins October 20-21 with qualifying October 22 and 23. Spectators will be treated to one of the best shows in road racing Oct. 24, 25, 26 as these drivers take to Road Atlanta's twisting 2.52 mile course.

New Faculty

WHATLEY

Also new to Southern Tech is Professor William H. Whatley. Professor Whatley joined the AET staff this Spring, coming from private practice as a Registered Architect with his own firm since 1959. Prior to that, he graduated from Georgia Tech with a Bachelors of Science degree and a Bachelor of Architecture degree in 1952. He then worked for an architect's firm until 1959.

From his experience as head of his own firm, Professor Whatley has "always been impressed with the superior education and practical training that an AET graduate posesses."

FOWLKES

Joining the MET department this quarter is Donald Fowlkes. Mr. Fowlkes comes to Southern Tech after 10 years in the Pentagon working with world wide logistics management. Mr. Fowlkes attended the University of Richmond for two years before recieving an appointment to the U.S. Naval Academy, where he recieved his B. S. in Engineering. The Richmond, Viringia native then served in the Navy where he set up training programs and did quite a lot of design work on Naval ships. His knowledge and talent for ships carries over into him recreational life as he enjoys sailing and has owned his own craft while living in the Chesapeake Bay area.

ANDREWS

Dr. Robert Andrews is the most recent arrival to the Southern Tech Math Department. A graduate of Illinois Institue of Technology, Dr. Andrews taught at Prairie State College in Chicago Heights, Illinois prior to his arrival at S.T.I..

Dr. Andrews is married and is the father of four grown children. He and his wife reside locally.

ON THE GO

Dr. Carol Barnum, assistant professor, Department of English, read a paper entitled "The Romantic Presence in John Fowles: The French Lieutenant's Woman" at the 5th Annual Colloquium on Modern Literature hosted by West Virginia University at Morgantown, West Virginia, September 11-13. Dr. Barnum's paper comprise part of a session devoted to the works of contemporary British novelist, John Fowles.

The STING needs an Advertising Manager. The position pays 50% commission on all the ads that you can go out and hustle. The jobs include all the necessary paperwork and is limited only by your desire to make money. Interested?--contact the STING editor, E. R. Auerhan

"The real power of the news media is not in informing the people, but in manipulating them."

V. I. Lenin

ROD LEE SELECTED ENGINEER OF THE YEAR IN EDUCATION FOR THE STATE OF GEORGIA

J. Rod Lee, Head, Fire Science, has been named Engineer of the Year in Education for the state of Georgia. Lee received recognition for the honor at the Georgia Society of Professional Engineers annual meeting in Pine Isle at Lake Lanier this summer.

Lee had been selected Engineer of the Year in Education by the 30 participating organizations of the Metro-Atlanta committee for Engineers Week last February. He was selected for the state honor from the 15 applicants representing various areas throughout the state.

The Case of the Sudden Descent

By Jack Strauss, LL.B.

Horace had a personal problem that he decided to try to forget over a few drinks. The only thing he forgot, however, was to stop drinking. Consequently, by the time he left his chosen boozery, he was reeling pretty good. In fact, as he was zigging and zagging down a street, he fell through an open manhole, the cover of which had been removed by Mr. Dinkle who had been working in the area.

While Horace wasn't hurt by the fall, he nearly got killed by the sudden stop at the bottom of the manhole -- and he sued Mr. Dinkle for his injuries.

"Leaving a manhole uncovered," complained Horace in court, "is almost as dangerous as looking down the barrel of a rifle."

"Nonsense!" responded Mr. Dinkle. "The accident was Horace's own fault. He was dead drunk and wasn't looking where he was going. The only thing I could have done to help him was to put a soft mattress at the bottom of the manhole. Consequently, he can't blame me for his injuries."

IF YOU WERE THE JUDGE, would you hold Mr. Dinkle liable for the injuries suffered by Horace as the result of his sudden descent?

This is how the judge ruled: YES! The judge held that Mr. Dinkle's carelessness in leaving a manhole uncovered in a public street could not be excused because Horace was drunk. "A drunken man is as much entitled to a safe street as a sober one," noted the judge, "and much more in need of it." (Based upon an 1855 California Supreme Court Decision)

MARIJUANA HAZARDOUS TO LUNGS

"Marijuana smoking constitutes the greatest singlenew threat to health of our lungs in the United States," says Robert L. DuPont, M.D., in an article in the September issue of the American Lung Association Bulletin.

"In the next ten years, the potential exists for an enormous worsening of the respiratory health of Americans," he says, "unless we do something about it now." Dr. DuPont, former director of the National Institute on Drug Abuse, is president of the nonprofit Institue for Behavior and Health in Washington, D.C.

Citing evidence that indicates marijuana is at least as serious a respiratory irritant as tobacco --and probably more so--Dr. DuPont notes recent studies with marijuana that show severe inflammation of the small airways as well as decreased ability of the lungs' defenses to dispose of bacteria and foreign materials.

In one study cited by Dr. DuPont, a single marijuana cigarette smoked for fifteen minutes produced as high a level of carbon monoxide in the blood of the smokers as ten to twenty cigarettes smoked during the course of the day. When marijuana smoke is condensed and painted on the skins of laboratory mice, it produces cancerous changes even more marked than those caused by tobacco smoke.

In addition to lung damage, Dr. DuPont says, "There is good evidence that there are profound effects both on brain function and reproductive function from marijuana use."

Expressing concern about the tremendous increases in marijuana smoking among the young, Dr. DuPont says, "American young people are literally the only population in the history of the world in which large numbers of an entire generation have smoked marijuana." Although marijuana has been smoked around the world for centuries, he says, its use in other countries has never involved an entire society; instead pot smoking is limited to either religious groups or social classes that are relatively isolated and generally looked down on in the society.

Among American high school seniors, whose daily use of marijuana has doubled within the last five years, about 60 percent recognize a great health risk in cigarette smoking, while only 35 percent see a hazard in smoking marijuana. "The idea that pot smoking may be hazardous to your health just hasn't cut through all the controversy and the politics surrounding the weed," he says. "There is a growing body of information about health risks, and we need to get that across."

Dr. DuPont sees a discrepancy in young people's concern about pollution, the environment, nuclear energy, emphasis on natural foods--and their continued marijuana smoking. "Smoke is bad for the lungs, whether it's industrial smoke, tobacco smoke or marijuana smoke," says Dr. DuPont in the lung association publication.

MARIJUANA

The smoking of marijuana is increasing so fast among teenagers that it is now almost as common as cigarette smoking.

In the latest government survey, 16 percent of teenagers between ages 12 and 17 reported they smoked marijuana regularly, while 22 percent said they smoked cigarettes. Eight percent of 12 to 13-year-olds had smoked marijuana at least once, and half this group were current users.

Although children under the ages of 12 were not surveyed, many of the teenagers surveyed said they first tried marijuana, and even started smoking it regularly, while they were still in grade school.

Most teenagers believe marijuana is harmless and relaxing. But, says the Georgia Lung Association, this belief--once widely felt about cigarette smoking--may be mistaken.

According to the lung association, new research suggests that marijuana smoke can interfere with the defense of the lungs, leaving them open to infection. Marijuana smoke also can severely damage and inflame the smaller airways of the lungs. Some researchers suspect the effects of marijuana smoke may be even worse than cigarette smoke, especially since it contains more cancer-causing substances than the smoke of cigarettes.

Young lungs continue to develop during- and after- the first decade of life. And hazardous assaults to the lungs are a special danger, says the Georgia Lung Association.

To find out more about lung disease, contact the Georgia Lung Association.

To find out more about lung disease, contact the Georgia Lung Association--The Christmas Seal People.

DANGERS SURROUNDING DRAFT REGISTRATION

The Central Committee for Conscientious Objectors, the nation's largest draft counseling agency, warned this month that the start of draft registration has added to the increased likelihood of an actual draft.

Larry Speakers, Director of CCCO's Youth and Conscientious Objection Campaign, says, "This past summer's draft registraion of men born in 1960 and 1961 was just the first step toward returning to the draft. This coming January, Selective Service plans to register those men born in 1962. After January 5, men (and perhaps women) born in 1963 will be required to register as they turn 18. It should be noted that the U.S. has never had a registration without a draft, and rarely a draft without a war."

"The need for young people to be informed and to consider going on record as a conscientious objector to war has never been greater than it is this Fall," says Spears.

"The Supreme Court's decision on GOLDBERG vs. TARR, a sex-discrimination case involving the draft and registration, will be final this Winter," comments Spears. "It is especially important for women to realize that they could be ordered to register for the draft, and perhaps be drafted. They too must consider their position on war."

CCCO has sued Selective Service for their draft plans and learned that they plan to allow registrants to claim hardship, medical, and conscientious objector status only at the last possible moment after induction orders are issued.

"Unless students begin to think about, and collect evidence for, conscientious objection claims and other options they are certain to be caught unprepared," says Spears.

"There is also growing sentiment within Congress to begin debate early next year on whether a peace-time draft should be started," he says. "It is important for young people to realize that under the current draft law, all men between ages of 18 and 26 are eligible to be drafted. Also, students should know that there is no longer a college student deferment under the new draft laws.

MAIL CALL

For almost a year, American diplomatic personnel, civilian as well as military, have been held hostage in a foreign land. Some of these military personnel are young people away from home for the first time. In 1979 we saw the American people respond to the plight of these hostages, with each receiving many thousands of pieces of Christmas mail.

On the other hand. The U.S. had many thousands of young military people on duty in the U.S. and around the world who received little or no mail during the Christmas season.

This is an ideal project for families, school classes, and organizations, as well as individuals. For complete information on how you or your group may have an active part in this very worthwhile program, please write to Armed Forces Mail Call, 2170 West Broadway #514, Anaheim, California 92804.

THANK YOU

What's happening

SOUTHERN BELL REPRESENTATIVE TO GIVE CAREER PLANNING PRESENTATION TO WOMEN STUDENTS AT SOUTHERN TECH

A presentation directed at women, emphasizing career planning and interviewing skills, will be given at 6:30 p.m. Tuesday, October 28 in the Library Seminar Room on campus.

All women students are invited to attend the hour-long presentation by Ms. Ann Fambrough, Staff Manager in Management Staffing with Southern Bell in Atlanta. The presentation is free; and, refreshments will be served.

In her three years with the Bell System, Ms. Fambrough has made several presentation to college and professional groups on personal and academic preparation for corporate positions.

Ms. Fambrough's program will be divided into two parts. For the first segment, she will present a brief slide presentation on career opportunities in the Bell System. The second half of the program will touch on four or five important areas that individuals should remember when "packaging" themselves for corporate interviews. It will include information on correct resume preparation, projection of a professional image and common mistakes people make when interviewing. The program will be followed by an informal question-and-answer session.

BENEFITS OF CO-OP PROGRAM

A student from Southern Tech recently got a sneak preview of military jobs related to his career desires.

Mark Tillman spent his summer at the Air Force's military space headquarters, Space Division, in Los Angeles. He was involved in a Cooperative Education, or CO-OP, program that gave him a chance to work in his chosen career field alongside his military and government civilian counterparts.

Space Division is the military organization responsible for research, development and acquisition of the majority of Department of Defense space systems.

Students are hired to work in a particular career area for six months, and they attend school for the remainder of the year. The pattern continues until graduation.

The goal, according to Susan Raffel, Civilian Personnel CO-OP Coordinator, is to recruit students into the Los Angeles AFS civilian work force on a trial basis.

If the arrangement proves successful, CO-OP offers the student a regular position with promotion potential upon graduation.

Some of the positions filled included civil and mechanical engineering, environmental and industrial engineering, contract administration, management analysis, computer science and industrial technology.

"It has given Space Division the opportunity to reach out directly to college students and provide on-the-job training in career-related assignments. The students, in return, have provided much needed work support to many space programs."

Three students who have completed the CO-OP program have chosen to begin their careers at Space Division and are working in program control and contracting.

Since the current CO-OP program has been successful, she concluded, it will be expanded to accommodate an additional 16 students, or roughly double the present capacity.

The expanded program will offer part-time work assignments to students at two-year and four-year colleges as well as graduate school.

CO-OP has been valuable to Space Division in various respects, said Ms. Raffel.

SOUTHERN TECH GRADS BEGIN CAREERS AT LOCKHEED

More than 30 bachelor degree graduates of Southern Technical Institute this year have accepted positions in manufacturing or engineering divisions of the Lockheed-Georgia Company.

"Lockheed has worked closely with Southern Tech since the college first moved to Cobb County 19 years ago," commented Paul Smith, Director of Placement at STI. "As Lockheed began expanding for its new contracts and building up the number of employees, more and more Southern Tech graduates accepted positions with the company. Now, there are many STI alumni employed there, and many are in management positions," he added.

1980 graduates now employed with Lockheed include Charles Alford, Darlene Bittaker, Wayne Blocker, Nathan Brannon, Nicholas Bruin, Mike Edge, Harold Edwards, William Ellis, Betty Evans, James Foshee, Ken Freeman, Robert George Daryl Huggins, John McCann, Janis Parkison, Carl Price, John Quarles Tammy Shipp, Frank Snipes, Eli Sonsino, Mike Spence, Terry Stancil, Jeff Taylor, Greg Wood, Kim Burns and James Cochran.

In addition to hiring bachelor degree graduates, Lockheed-Georgia also works closely with Southern Tech in its cooperative education program, which allows students to work and go to school in alternating quarters and gain on-the-job experience.

Southern Tech students now participating in the cooperative education program at Lockheed include Troy Castona, Kevin Harbrecht, Kenneth R. Heard, Mark S. McGriff and Mark D. Crissey. Co-op students with Lockheed hired on a full-time basis this year upon their graduation include Carolyn Bennet, R. Glenn Allen, Richard Jennings, Russell Tumlin and Bill McSwain.

Lockheed also serves Southern Tech students by offering part-time employment and summer internships. More than 20 STI students are now participating in those two programs.

Lockheed-Georgia Company Personnel Director Hugh Gordon commented "Lockheed is pleased to have such an excellent source of technical manpower talent in out community. The availability of applied engineering skills offered by Southern Tech's four-year technology graduates provides a necessary complement to our purely theoretical and research-oriented activities. We expect to maintain a strong working partnership with Southern Tech in the future and we look forward to adding many STI graduates to our team."

Gordon also indicated that the number of STI graduates hired by Lockheed-Georgia during the 1980-81 school year was greater than any other school from which the firm hired new grads.

REGENTS' SCHOLARSHIPS AWARDED TO 222 RESIDENTS OF GEORGIA

Regents' Scholarships totaling $118,476, awarded to 222 residents of Georgia for study at 18 institutions of the University System, were approved by the Board of Regents at the August and September meetings.

The institutions awarding the scholarships, with the number and the amount of the scholarships at each institution indicated, are:

Georgia State University, 39-$22,920
Medical College of Georgia, 5-$3,750
University of Georgia, 83-$51,350
Albany State College, 5-$2,123
Armstrong State College, 5-$2,055
Augusta College, 6-$3,142
Columbus College, 4-$2,243
Georgia College, 5-$3,450
Georgia Southern College, 37-$10,800
Kennesaw College, 1-$450
Savannah State College, 4-$1,725
Southern Technical Institute, 5-$3,250
Valdosta State College, 11-$6,825
West Georgia College, 2-$500
Dalton Junior College, 1-$450
Floyd Junior College, 1-$500
Gainesville Junior College, 4-$1,666
Middle Georgia College, 4-$1,275.

The scholarships were awarded for use in the 1980 summer quarter and the 1980-81 academic year.

Regents' Scholarships were established in 1961-62 for the purpose of assisting student of superior ability who need financial aid in order to attend college. The scholarship program is administered by the University System institutions in accordance with policies established by the Board of Regents.

The awards are made only to Georgia residents for enrollment at University System institutions.

(CONT. P.17)

What's happening: Campus

(FROM P.16)

The institutions receive, through the financial aid directors, applications for Regents' Scholarships. They choose recipients and determine the amounts and the timing of the awards, subject to policies and regulations of the Board of Regents. The board takes final action on each award decision made by an institution.

ENDOWMENT FOR HUMANITIES

The Youthgrants program of the National Endowment for the Humanities will offer over 100 cash awards across the nation this fall to young people in their teens and early twenties, including many college and university students, to pursue non-credit, out-of-the-classroom projects in the humanities. The deadline for submission of completed applications is November 15, 1980.

An annotated exhibition of 20 century war-time "home-front" activities in Minnesota and Wisconsin, a booklet on the history of the sheep industry in Vermont an anthropological film about a Los Angeles gypsy community, and a collection and study of migrant-worker border ballds in South Texas are some of the projects undertaken by college and university-age youth.

The grants, which offer up to $2,500 to individual and up to $10,000 for groups are intended primarily for those between the ages of 15 and 25 who have a way to go before completing academic or professional training. While the program cannot provide scholarship support or financial aid for degree-related work, it is the only federal program which awards money directly to young people for independent work in the humanities.

If you are interested in the program, a copy of the guidelines should be on file at the Placement Office or the Office of Contracts and Grants.

If not, please write before October 15, if you wish to meet this year's deadline. To:

Youthgrants Guidelines
Mail Stop 103C
National Endowment for the Huamanities
Washington, D.C. 20506

LEUKEMIA FUND DRIVE

Each year fraternities at Georgia Tech have a drive to raise money for leukemia research. Last year, the drive raised almost $25,000. This year Georgia Tech is again a "hornet's nest" of activity as the fraternities gear up for the drive. A number of activities are planned including a Celebrity Country Fair and a contest to find Atlanta's Ugliest Bartender.

The Tech students hope that all area college students will plan to attend the Celebrity Country Fair on Saturday, November 1 in the Georgia Tech Burger Bowl at the corner of Hemphill and Ferst streets. This exciting and fun-filled day begins at 10:00 a.m. and concludes at 6:00 p.m. Activities will include games, entertainment, special events, and food. Many Atlanta personalities will be assisting the fraternity members--Martas Beverly Mollander, Monica Kaufman, Lou Davis, John Patrick, and many others. Guests will be greeteed by Chief Nok-a-Homa, the Quixie Quacker, and characters from Six Flags. The Hawk's Fast Break Cheerleaders will be selling kisses to assist in the effort. Prizes will be awarded in games of chance and contests such as a Haloween costume contest. The Ramblin' Reck will be there as will the Wrecks from the Homecoming Parade and Stills will be exhibited that have been built by each fraternity for Homecoming.

For more information call 873-3666.

HUNT PROMOTED TO PROJECT ARCHITECT AT GRESHAM AND SMITH

Thomas A. Hunt, Jr., AIA, has been named project architect with the architectural engineering and interior design firm of Gresham and Smith. According to Robert D. Gower, AIA, Professional Associate, Hunt is one of two newly promoted architects at the firm's Birmingham office.

A native of Atlanta, Hunt's specialities include programming, barrier-free design, construction document preparation and contract administration.

Hunt was recently nominated for the Young Men's Business Club of Birmingham's "Man of the Year Award." He is a member of the American Institute of Architects, Access Unlimited, Inc., the National Center for a Barrier Free Environment and the Alabama Coalition of Citizens with Disabilities.

Hunt received his Bachelor of Science in Architectural Engineering from SOUTHERN TECHNICAL INSITUTE, Marietta, GA in 1973.

Gresham and Smith ranks among the leading professional design firms in the nation with additional offices in Nashville, Tennessee; Charleston, South Carolina; and Jacksonville Florida.

5TH ANNUAL ETLI TO BE HOSTED BY STI

The 5th Annual Engineering Technology Leadership Institute will be held October 26-29 at the Marietta Ramada Inn.

Hosted by Southern Tech, the institute provides a forum for discussions of problem areas both pertinent and current to the engineering technology community.

Engineering technology leaders of both 2-and 4-year programs, as well as industry representatives, are expected to attend.

Giving the keynote address at Monday's opening session will be Dr. Walter O. Carlson, former dean-executive director of STI, now a professor at Georgia Tech. Monday's luncheon will be in the Student Center Ballroom on the STI campus. Faculty and staff planning to attend should phone Ms. Chris Statham in Dr. Stevens' office. Tickets may be purchased for the luncheon or for the banquet Monday night, to be at the Ramada Inn.

From 3-5 p.m. Monday, conference participants will view a slide presentation on the college and tour the labs and departments.

Conference topics include leadership development, faculty procurement and development, the national image of engineering technology, the role of engineering technologists in other countries and continuing education for engineering technology graduates. Several position papers will be presented on a variety of topics, including recruitment of women and minorities into engineering technology programs, mandatory CEU's for engineering technology professional relicensure, a model for effective industrial interface, registration or certification for engineering technology graduates, and a model for a technology master's degree program.

Interested faculty, staff and students are invited to attend any or all of the sessions.

SHAKESPEARE

William Shakespeare and the Elizabethan Age are coming to Atlanta. Agnes Scott College will open a year-long English Renaissance Festival Wednesday, Oct. 22, with a performance by the touring company of the Alabama Shakespeare Festival State Theatre.

The State Threatre will present Shakespeare's romantic comedy, "The Two Gentlemen of Verona," at 8:15 in Presser Hall. Admission will be $2.50 at the door.

The English Reanissance Festival will offer a series of public concerts, plays, lectures and special events celebrating the Bard and his times. Agnes Scott is sponsoring the festival in conjunction with the Folger Library exhibit, "Shakespeare: The Globe and The World," which will be on display at the High Museum of Art beginning in February, 1981.

After the opening performance by the Alabama Shakespeare Festival Theatre, the English Renaissance Festival will continue with performances of "A Midsummer Night's Dream" by the Agnes Scott Blackfriars, lectures on Hamlet, Sir Thomas More and other Elizabethan topics, a concert of Baroque and early Renaissance dance by the New York Baroque Ensemble and Concert Royal and other events yet to be announced.

The Renaissance festival will culminate in the spring with an Elizabethan Revue directed by Dr. John Toth of the Agnes Scott theatre department, a Renaissance style banquet and a fair with medieval games and entertainment.

For more information about the English Renaissance Festival, call Agnes Scott College at 373-2571, extension 230.

What's happening: County, City

AMERICAN MARKETING ASSOCIATION

Dr. Robert Carney, as well-known international lecturer on leadership, will give a half-day seminar on the importance of authority in management on October 27 from 1 to 4:30 P.M. The seminar, sponsored by the Atlanta Chapter of the American Marketing Association, will be held in the Community Room of Decatur Federal Savings and Loan's Toco Hills Office.

Dr. Carney is a professor of management and a behavioral scientist in the College of Management at Georgia Institute of Technology, and he has lectured to hundreds of management and professional groups in the United States, Canada and Latin America. The half-day seminar is targeted to individuals who expect to progress to positions of leadership in their organizations and will ocver where power comes from, the problems of authority, the loss of power, and the relationship between authority and delegation.

The seminar is open to American Marketing Association members and the general public. Registration fees are $5.00 for AMA and $10.00 for non-members. To register or for further information, contact Richard Teach at (404) 894-2637.

VOLUNTEER COBB-MARIETTA

TUTORS-A tutuoring program needs volunteers to assist young adults in reading and math skills. If you can spend one night a week or month, call United Way's Volunteer Cobb/Douglas at 428-8344.

COORDINATOR-Organizational volunteers and coordinators are needed to set up and carry through a major health screening project for the community. For more information, call United Way's Volunteer Cobb/Douglas at 428-8344.

TUTORS-Tutors are needed for a late afternoon program. If you can spend two hours a week, call United Way's Volunteer Cobb/Douglas at 428-8344 for more information.

DRIVER-Volunteering at a local hospital has really made a difference for a senior citizen at a nursing home. But now she needs a volunteer to drive her to the hospital Monday or Friday at 9:00 AM to 2:00 PM. Give the gift that really helps by calling United Way's Volunteer Cobb/Douglas at 428-8344.

VOLUNTEER ORIENTATION-Training session for aspiring Santas! Learn more about this community wide holiday effort at an orientation session for clerical and distribution volunteers. Give the gift of your time by calling United Way's Volunteer Cobb/Douglas at 428-8344.

PROGRAM AIDES-Share your talents in music, crafts and dance with small children at this Douglas County day care center. In-service training provided. Call United Way's Volunteer Cobb/Douglas at 428-8344 for more information.

SURROGATE PARENTS-Adults interested in providing quality education for children without parents may find out more about surrogate parents program at orientation sessions October 27th. Get involved by calling United Way's Volunteer Cobb/Douglas at 428-8344.

SPEAKER'S BUREAU-Spread the world about volunteering by joining a speakers' bureau. Training provided October 30th at noon. To find out more, call United Way's Volunteer Cobb/Douglas at 428-8344.

TURKEY SHOOT-An area turkey shoot needs a sponsor to provide BB guns and about 200 targets for this event. If this need is on target, call United Way's Volunteer Cobb/Douglas at 428-8344.

CRYSTAL GAYLE IN ATLANTA, NOVEMBER 1

Columbia recording artist Crystal Gayle will be appearing at The **Fox** Theater in Atlanta on Saturday, November 1st.

Combining pop, country and blues, Crystal is an artist whose style is hard to categorize and whose appearl is as diverse as the voice itself. When asked about her style of music, she replies, "I never label my music. I just try to sing good songs and hope that as many people as possible like what they're hearing."

And obviously, they must. Crystal already has two "Platinum" and four "Gold" albums to her credit. For two years running, she was named the Outstanding Female Vocalist by the Country Music Association. In 1978, she received a Grammy for her peformance of her multi-million seller, "Don't It Make My Brown Eyes Blue." In January of 1980, she was honored with her second consecutive American Music Award as the Favorite Female Country Vocalist and in May of 1980, she received her third Academy of Country Music Award as Top Female Vocalist.

Crysta's new album for Columbia Records, "These Days", contains her current hit single, "If You Ever Change Your Mind". Later this year, on December 4, she will be seen in her second television special for CBS-TV with her guests The Charlie Daniels Band, Eddie Rabbitt and Dionne Warwick.

As Crysta's fans know, and anyone who sees her will soon find out, she sings from the heart, and that's what great music and great performing are all about.

HIGH MUSEUM BRINGS ART

To celebrate Belgium's 150th anniversary as an independent kingdom, The High Museum of Art will open two exhibitions from Brussels on October 4: Flemish Old Master Drawings and Flemish Expressionism. The exhibitions will run simultaneously through November 26.

An exclusive-to-Atlanta exhibition, Flemish Old Master Drawings, includes drawings by such masters as Peter Paul Rubens, Jan Breughel and Jacob Jordaens.

The Flemish Expressionism exhibition, highlighted by one of James Ensor's indisputed masterpieces, "Self-Portrait Surrounded by Masks," will be seen only in Atlanta and Tampa. Both exhibitions are from the Royal Museum of Fine Arts of Belgium in Brussels, and have been made available to the High Museum under the patronage of the Honorable Anne Cox Chambers, U.S. Ambassador to Belgium and Fernand van Brusselen, Belgian Consul-general in Atlanta.

Flemish Old Master Drawings constitutes a survey of the leading Flemish artist of the 16th and 17th centuries who worked in Antwerp, the chief center for the arts in Flanders at that time.

FLEMISH EXPRESSIONISM opens on the second floor of the Museum also on October 4, offering Atlantans a first opportunity to see this significant contribution to 20th century art. This display of nearly 70 strikingly original and unusual paintings begins with James Ensor in the later part of the 19th century and goes through Constant Permeke, who died in 1952.

The High Museum of Art is open Tuesdays through Saturdays from 10 a.m. to 5 p.m. and on Sundays from noon to 5 p.m. Tours of visiting exhibitions are conducted each weekday by the Museum's docent committee at 11:15 a.m. Tours of the permanent collection are conducted each weekday at 10:30 a.m. For scheduling information on all activities at the High Museum, call the Museum's hotline, at 873-4615. The High Museum is located at Peachtree and 15th streets.

Teacher openings

Campus Digest News Service

The findings of a survey done by an industrial arts and vocational education professor have revealed a nationwide shortage of industrial-arts teachers in secondary schools.

Rex Miller of the State University of New York College at Buffao, found 49 states have vacancies for industrial-arts teachers, and nearly a third of those states have 50 or more openings.

SPORTS CAR
(FROM P.9)

stroke six pushed out the tail pipes. Ah, those were the days.

Coming to the edge of the yard, an object much taller than the rest caught my eye. It looked like one of those square, aluminum utility buildings that Sears sells for backyard storage. After climbing over another old MG and squeezing by a Vauxhall I saw that it was an old Land Rover. Land Rovers were bustin' bushes and carvin' trails a generation before there was any such thing as a Blazer or Bronco. The funny thing about this Land Rover is that it looked right at home in the weeds covered with dirt, complete with broken windows. It didn't really look junked because that's the way they were supposed to look. These things were meant for off-road use a long time before four wheel drive became chic. They were uncomfortable, noisy, hard as a rock to ride in and tough as a Marine DI. A good look at one of these tractors will give you a whole new perspective on the made-by-Mattel trucks of today.

Realizing that I was enjoying this perhaps too much, I turned to leave. Leaving the yard was somewhat like leaving the family cemetary. It's depressing to stay and yet there's a fondness for these things here that's hard to explain. These were some cars: MG, Morgan, Alvis, Sunbeam, Triumph. These were cars that people had when men were men and women were women and everybody carried - around a lot fo spare parts and tools. But not all of these species are in the yard. There are survivors. Survivors because there are enough sentimentalists like me around who are willing to take one in and support it with their busted knuckles, profanity and dollars. I've learned my lesson, though. No Sir, no more ailing British iron for me. Say, that Sprite isn't really too rough. A coat of paint and a little engine work and . . . My God, get me out of here!!

Mike Payne

Grads in demand

Campus Digest News Service

Mining and petroleum graduates are in high demand and the schools which train them are reporting record enrollments. Starting salaries for mining and petroleum studnets average around $24,000 a year.

There has been a sharp increase in the number of women students enrolling in the schools, also. However, there is a shortage professors to teach the increasing numbers ofstudents.

PHOTOVOLTAIC CELLS
(FROM P.7)

were improved to a ten percent efficiency rate by 954. Efficiency is increased by substituting types of semi-conductors, and utlizing lens and mirrorsto concentrate or magnify the sunlight. Other scientists devise new ways to produce semi-conductors for cells at reduced cost. One popular semi-conductor used in solar cells is silicon. The silicon must be formed into crystal ingots and sliced into wafers to make solar cells. A new process of using laser for slicing reduces costs because less silicon is lost in slicing the ingots. These and other advancements due to long study and increased technology have led many specialists in the field of solar energy to say that it is only a matter of time until the cost of solar-produced energy is reduced.

Another problem in the use of solar cells to generate electricity arises when the sun goes down or beind the clouds. Storage of the electricity produced by solar cells has, thus far, been accomplished by convential batteries. However, as use of solar energy increases, storage in this manner becomes impractical, forcing solar energy scientists and system designers to formulate plans for mass storage and distribution of this energy.

Once these obstables are overcome, the door to solar energy can be opened to many projects. Various studies in solar engineering reveal almost limitless possibilities in the field of photovoltaics. For example, a proposed system of satellitescould encircle the earth our in space, gathering solar energy from the sun. These orbiting satellites would beam the energy back to earth by microwave. The proposed satellite system would need a surface area of 12,000 square kilometers and at current prices would cost over a trillion dollars. However, it would be capable of satisfying the electricity requirements of the United States.

JACK BOOKER

INVICTUS

Out of the night that covers me, Black as the Pit, from pole to pole, I thank whatever gods may be, For my unconquerable soul.

In the fell clutch of circumstance, I have not winced, nor cried aloud. Under the bludgeonings of chance, My head is bloody, but unbowed.

Beyond this place of wrath and tears, Looms but the horror of the shade. And yet, the menace of the years, Finds, and shall find, me unafraid.

It matter not how strait the gate, How charged with punishments the scrool, I am the Master of my fate, I am the Captain of my soul.

William Earnest Henley

JACK STRAUSS

WHAT'S THE LAW

The Case of the Sneaky Shark

By Jack Strauss, LL.B.

Frank saw JAWS, but it wasn't in the movies. While swimming at a city-owned beach in the Gulf of Mexico -- about 25 feet from shore and about 15-20 feet north of a life guard station -- he was attacked by a shark without the benefit of being forewarned by scary music.

Pulled ashore by a life guard, Frank sued the city that maintained the swimming area for his severe injuries.

"Since sharks are known to frequent the Gulf of Mexico," insisted Frank in court, "it was the duty of the city to keep tabs on shark activity in the vicinity -- and to protect swimmers from being attacked by one. Until it was certain that the waters were safe, no one should have been permitted to go swimming."

"Nonsense!" responded a city official. "It's been 24 years since a shark has actually been seen in our beach waters. While there have been reported sightings from time to time, the alleged sharks have always turned out to be porpoises. Consequently, there was no duty to protect swimmers against sharks that didn't exist -- until now -- or to keep tabs on such nonexistent sharks."

IF YOU WERE THE JUDGE, would you hold the city liable for Frank's encounter with the shark?

This is how the judge ruled: NO! The judge held that since the city-owned beach was considered safe from sharks -- with no reported shark activity in the area for many years -- it had no duty to foresee the attack upon Frank, to protect him against it or to keep tabs on shark activity in the vicinity. The owner of property, noted the judge, is not generally responsible for the injuries that are inflicted by wild animals in their natural habitat. Nor are property owners required to anticipate the presence of wild animals -- or guard invitees against harm from them -- unless the property owner has reduced the wild animals to possession, harbors them or has introduced them onto his property when they are not normally found in the locality. (Based upon a 1976 Florida Dist. Court of Appeals Decision)

The Case of the Instant Replay

By Jack Strauss, LL.B.

Barry's pick-up truck turned out to be a stick-up truck. As he was driving out of a shopping center mall, two desperados who had just robbed a storekeeper hopped in beside Barry -- and ordered him to hit the gas. With a gun pointed at his head, Barry opted against trying to discuss the matter and did what he was told. But moments later, when he slowed down to make a turn, he jumped out of the vehicle and rolled to safety.

Soon the two men were arrested and charged with robbery! The experience had been so unnerved Barry, however, that he had completely blanked out what the two men looked like and wasn't able to identify either. Then, he was put under a hypnotic spell and told to try to recall the episode. Upon coming out of the trance, Barry was immediately able to identify both of them -- and did so in court at their trial.

"Under hypnosis," he explained, "I was able to relive the entire incident. I saw the two men again like an instant replay on television."

"Now, wait one little old minute," objected the attorney for the two accused men. "My clients can't be identified or convicted on that kind of hokey-pokey. While hypnotism may be OK for Mandrake the Magician, it has no place in a court room. It's almost like using a ouija board to conjure up evidence -- and it can't be allowed."

IF YOU WERE THE JUDGE, would you permit Barry to identify the two accused men on the basis of his hypnotic recollection?

This is how the judge ruled: YES! The judge held that a witness may testify as to his present recollection based upon that recollection having been refreshed under hypnosis. Thereafter, concluded the judge, it's up to the jury to give the testimony as much weight as it wants to. (Based upon a 1980 Florida Dist. Court of Appeals Decision)

PEACE CORPS NEWS

I am always amazed at the real power college students have at their command, and how much of it goes unused--wasted.

That is a shame. Because student power could provide that critical margin, that extra measure of push needed to channel our national policies, our energies and our consciousness into new ways of meeting the very pressing needs of the people of this world.

No, I am not talking about the street demonstrations and the sit-ins that were part of another decade. I am talking about the power you have--collectively--as citizens, voters, and shapers of opinion, and about the power you have as individuals to make things happen on your own.

I am told that the current generation of college students is more concerned with their own welfare than with making this planet a better place to live. I am told that. But I don't believe it. I suspect that today's college students are simply not aware of what is going on in the world.

Take the issue of world hunger. Think of the thousands of people who will not live until tomorrow morning because they can't get enough to eat. Now what can you do?

I think it is really simple for a campus hunger committee to establish a voter registration booth where students pay their tuition and begin to talk about the problem--raise political consciousness. The problem with young people, and I've learned this from my own family, is that they all register to vote back home and then forget until the last minute to write home for absentee ballots. You've got to get people to register on their campuses. I think this would revolutionize American politics.

If you have, for example, 55 thousand students on a campus like Ohio State, or 45 thousand at Michigan State, and they are registered, every candidate coming to those states would come throug the campuses because there are so many votes there. And at that point you get to ask the candidate about what he or she is going to do world hunger. Then the candidate goes to another campus and gets the same question. That starts people in public life thinking, coming up with policies to change things, to get action.

Let me talk for a moment about the other kind of power, the power students have as individuals. You have a decision to make: whether to use the knowledge and experience you are gaining to help only yourself or to share the fruits of your education with people who desperately need what you have to give.

You don't even have to re-invent the wheel. It's already been done. It's called the Peace Corps. Some 80 thousand people, many of them fresh out of school, have served as Peace Corps volunteers helping people in developing world help themselves to a better life. The Peace Corps is celebrating its 20th anniversary. It is still going strong, still attracting bright people who wanted to enrich their lives by helping others.

It is an option worth considering. So is service in this country as a VISTA volunteer. VISTA, which stands for Volunteers in Service of America, has just celebrated its 15th anniversary.

The nice thing about VISTA and Peace Corps is that they work. They get results. As an individual volunteer, you may even change world history, and you will certainly change the lives of the people you come in contact with. When you add up all the lives touched by all the volunteers, think of the difference it makes.

The problems of this world are not going to go away overnight. A better world is built just like a house, brick-by-brick, piece by piece.

Yes, college students do have power, collectively and individually. How well they use that power will make a difference in how well, we, as a world community, meet the challenges of this decade.

Andrew Young

WITH A LITTLE STUDYING, I'LL PASS THAT REGENTS TEST THIS TIME.

collegiate crossword

ACROSS

1 Garland for the head
7 Shoe or accent
13 Serf or thrall
15 Shower activity
16 Tige (3 wds.)
18 Noshed
19 Trained down
20 Rater of m.p.g.
21 French movie
23 German steel center
24 Gardener, at times
25 Santa's reindeer, e.g.
27 Peter and Moses
28 Justifications for being (2 wds.)
34 Guidonian note
35 Julie Christie film
36 Neighbor of Mich.
39 1895 automotive invention (2 wds.)
41 Computer language
44 Puccini opera
45 Not an imitation (abbr.)
46 Trite
51 Goulash
52 Actress Mary ——
53 Jipijapa hats
55 Opposite of WSW
56 Champion (3 wds.)
59 Copes with
60 Legendary
61 Dealer in the stock exchange
62 Valuable violins, for short

DOWN

1 Tuna variety
2 Maritime
3 In —— (without being present)
4 American record label
5 "—— Tu," 1932 song
6 Actress Oberon
7 Elizabeth ——, Irish novelist
8 Sally or Ayn
9 Wife of Saturn
10 Evangelical society
11 Sealed
12 Actress Samantha, and family
14 Baseball stats
15 Suffix for two or three
17 Hotel sign (abbr.)
22 Some tech. graduates, for short
24 Tint
26 Subject
27 U.S. or Lou
29 Dora Copperfield —— Spenlow
30 Baker and Beale (abbr.)
31 Expected
32 Pipe joint
33 Gift for a man
36 Flowering shrub
37 In high dudgeon
38 Ocean plants
39 Understand, to some
40 General offices: abbr.
41 Believed
42 Debt
43 Yellowish brown
46 Hank of baseball
47 Formicologist's specimens
48 Close to: Scot.
49 Vanderbilt and Carter
50 Endures
53 Colorless
54 Something to put
57 Mr. Byrnes
58 Hockey great