

The Tech News

Volume 59

Worcester, Massachusetts, Wednesday, March 13, 1968

Number 5

Tech Promotes Ten Faculty Members

Worcester Polytechnic Institute has promoted 10 faculty members, according to Vice President M. Lawrence Price, dean of faculty.

Six have been raised to full professor; two to associate professor, and two to assistant professor, effective July 1.

Promoted to professor were: Arthur W. Back of 1 Hawthorne St., history and modern languages; Russell H. Krackhardt of 81 Barnes Hill Road, Berlin, and George E. Stannard of 3 Whitney Dr., Paxton, both in electrical engineering; Dr. Thaddeus H. Roddenbury of 19 Reservoir St., Holden, economics, government and business; Carleton W. Staples of 8 Alden Ave., Shrewsbury, mechanical engineering and Dr. Luke N. Zaccaro of 64 Church St., Northboro, mathematics.

Promoted to associate professor were: Thom Hammond of 33 Hackfeld Road, mechanical engineering, and James Hensel of Zero Montvale Road, English.

Promoted to assistant professor were: Edmund M. Hayes of Prentice Road, Whitinsville, English, and Robert Long II of Doyle Road, Holden, physics.

Prof. Back is a graduate of Clark University, where he was an assistant in the French Department. He received his master's degree in French at Middlebury College. He also taught at Holden High until he joined the W.P.I. language department in 1941.

Prof. Krackhardt is a graduate of Case Institute of Technology, and received his master's degree at W.P.I. He joined the W.P.I. faculty as a graduate assistant in 1946.

Prof. Stannard is a W.P.I. graduate, who took his master's degree at Massachusetts Institute of Technology, and received a master of science in mathematics at Clark. He was on the staff at the M.I.T. Radiation Lab. for two years before teaching at W.P.I. in 1946.



Arthur W. Back



Thaddeus H. Roddenbury



Russell H. Krackhardt



Carleton W. Staples



George E. Stannard

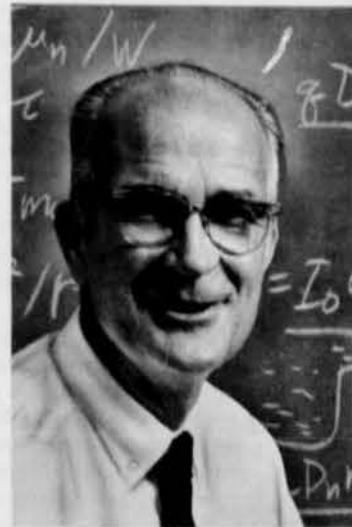


Luke N. Zaccaro

NOBEL PHYSICIST TO SPEAK

Dr. William Shockley, a Nobel Prize winner in Physics, will visit Worcester Polytechnic Institute, Monday, March 18, and address the combined seminars of three Tech Departments.

Dr. Shockley, best known as an inventor of the junction tran-



William B. Shockley

sistor, has as his topic, "Thinking About Thinking Improves Thinking."

He will speak before combined groups from mechanical and electrical engineering and physics departments at 4:30 p.m. in Olin Hall. The colloquium is open to the public.

Dr. Shockley who has a deep interest in the thinking and learning process, is a graduate of California Institute of Technology and received his doctorate at Massachusetts Institute of Technology.

During World War II, he was on leave from Bell Telephone Laboratories as director of research for the Navy's anti-submarine warfare operations research group and as expert consultant to the Office of the Secretary of War. When he returned to Bell he became director of the

(Cont. on p. 6, col. 1)

ROTC Cadets Lose Graduate Deferments

When a new Army program takes effect in 1969, second lieutenants commissioned through the Reserve Officer's Training Corps (ROTC) will find it tougher to postpone active duty to attend graduate school.

The new program will specify certain advanced degree subjects for which active duty deferments will be granted. It will also establish a quota of deferments to be given in each study area.

Previously, the Army followed a liberal policy of granting active duty delays to almost any ROTC graduate who pursued an advanced degree.

Under the new policy, cadets who plan graduate studies in medicine, veterinary medicine, dentistry and osteopathy as well as those training for the ministry will continue to receive active duty deferments without regard to restrictions.

Those planning graduate studies in other fields may or may not receive a delay. The Department of the Army (DA) in Washington will decide.

Each May DA will publish a list of subject disciplines for which the Army has specified requirements. Postponements will be granted to a certain number of officers who plan to do graduate

work in one of the listed subjects.

The DA list to be issued this May will pertain to cadets graduating from May 1969 through April 1970. The subject roster will be updated annually.

Since a limited number of deferments will be given for each subject listed, applicants will be considered on a competitive basis.

The new program makes provisions to grant delays to ROTC cadets now in their junior year who plan to do graduate work in subjects that will not be on the initial list.

All ROTC-commissioned officers not receiving a delay will be considered immediately available for active duty.

The new Army policy is in keeping with President Lyndon B. Johnson's executive order of June 30, 1967 which decreed that draft deferments would no longer be granted for graduate students except those in certain professional fields of study.

The program will not affect cadets graduating this Spring or officers already engaged in graduate studies.

Additional information on the new program may be obtained from Professors of Military Science at local institutions having ROTC programs.

Interfraternity Council Changes Rush System

I.F.C. MEETING

The Interfraternity Council has decided to abandon the old rushing system, and establish a new one. The new system will be only three weeks long. The decision is the indirect result of the efforts of a committee set up to evaluate the old system. The committee recommended a two week rush period with 50 minute tours of each house. This proposal was voted down by those attending the I.F.C. meeting last Thursday. Two proposals were then made. One was for a three week rush period, and the other for a five week period. The three week proposal was passed. It was decided that a committee would be set up to investigate the best possible form for the new rush system. The committee will present its recommendation in the near future.

The next order of business was

the nominations for IFC officers. The vote will be taken at the next meeting. The nominations for president are Dave Healey, Larry Katzman, and Thomas Gurney. Nominations for treasurer are Don Forcella and Ted Lellick and for secretary the nominations are Peter Denoncourt, John Galvin, and Lenny Polizzotto.

The meeting closed with a report from the I.F.C. Committee studying the General Excellence Prize. The committee stated that the idea of general excellence is intangible and subjective. That is, we should not work toward an ideal. They stated that it is greatly weighted in favor of scholarship, and is therefore a redundant and unnecessary prize to the intelligent. Finally they said that all gains are individual satisfaction gains, and a collective recognition of such gains are not necessary.

McClain to Examine ROTC at L.I. Schools

ROTC COMMITTEE

The ROTC committee headed by Dr. William L. Kranich met on Thursday, March 7 to review the old business from the previous week's meeting. Previously the committee discussed the open ROTC assembly in which students voiced their opinions about compulsory ROTC. Concerning

the fact that he has heard from no students since this meeting, Dr. Kranich said, "The open meeting objective was fulfilled."

The ROTC committee heard a report from Lt. Col. Ralph McClain, who looked into the possibility of exchange programs between the Worcester schools, (Cont. on p. 5, col. 5)

The Tech News

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JOEL GREENE
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Editorial

New Rush System A Welcome Change

The I.F.C. has just taken a big step forward in the search for a reasonable rushing system. After rejecting an excellent two week rush program developed by Vin Genereaux, the I.F.C. passed a motion calling for a three week rush program—the details to be worked out in the coming months.

The rejection of a two week program was, unfortunately, quite predictable. Despite the fact that every objection to such a short rush was answered, the "fear" of pledging freshmen who would not "fit in" still remained in the minds of many house presidents. The vote in favor of a three week system is all that saved this group from bearing the responsibility for the continuation of an outdated and burdensome system and from earning the condemnation of a faculty which is justifiably tired of the whole foolish show.

The major obstacle to a short rush appears to be the fear that the fraternities will not know the freshman well enough before they are pledged. In other words, many houses cannot bear the thought of a heterogeneous pledge class. No one wants to take the chance of picking up a pledge who lacks a certain "cool" desired by each fraternity. But perhaps this is the most valid criticism of the fraternity system—many of the men who could benefit most through the fraternity experience are rejected by the houses. The freshman lacking a firm handshake, the right personality, social grace, and "some good moves" could learn a lot by joining a fraternity. The introvert and WSF might finally have a chance to develop socially.

A short rush will not force the houses to choose pledges blindly. The houses which seek a stereotype freshman, however, might not have time to discover which men fit in perfectly—which is for the better.

Just as important will be the reduction of time spent by fraternity men and freshmen during rushing. The present system is an unnecessary drain on the time and energy of the school's most active students.

The three week system is a start. Perhaps when the fraternities realize that they can survive with this new system, a two week rush can be arranged. The system must be willing to try some new ideas or it will become an obstacle rather than a complement to the educational process.

J. G.

Life Styles For God And Country, And Even Niggers

by H. H. Shore

If you are not aware that the American Bill of Rights is even now, as it was 100 years ago, the subject of cynical attack by "good Americans," try digesting "California's New Vigilantes," by William Wingfield, appearing in the February *Progressive*. It is the story of the infantile mentality and maniacal projects of the way-out Right in Southern California, spearheaded by the infamous John Birch Society and other 20th century reservoirs of ignorance.

A recent attack by our "super-patriots" focused on an eighth-grade history textbook, *Land of the Free*, approved by the California State Board of Education and the State Curriculum Committee. Critics said the book was "pro-Communist," "pro-Negro," "anti-American," "anti-Republican." A special committee was formed to review the book. The group included Pulitzer-prize winner Allan Nevins and other eminent historians.

The findings of the group were quite provocative. Although recommending some minor revisions, the report stated: "We have been impressed both by the generally high quality of the book and by the earnestness and merit of many of the critical judgments." But ignorance prevails. "Some parents," says the author, "have talked about burning the book on school lawns."

Mr. Wingfield goes on to explain other forms of assault by California right-wing groups on freedom of speech and press. For example, a prominent member of the Pasadena City College board of trustees tried to get the board to adopt a rule barring "controversial" speakers from the campus. Target: Jerry Farber, writer for the Los Angeles *Free Press*, one of America's largest and most popular "underground" newspapers. The American Opinion bookstores of the John Birch Society have been trying to eradicate the newspaper on grounds of "treason and obscenity."

Endless examples of the illogical impulsiveness of the rightwing are available. One of the most frightening implications of "Birchism" is in its infiltration of local police departments. Groups of this nature have formed an organization called the Fire and Police Research Association within the Los Angeles police department, claims the author: "Robert Conot in his book, *Rivers of Blood, Years of Darkness*, wrote that members of this group obtain material at American Opinion bookstores for distribution to their fellow officers." Conot wrote that in one police station the cell members put up a picture of Eleanor Roosevelt with the caption "Nigger-Lover."

A potent desire to eliminate the student UCLA *Daily Bruin* was spearheaded by other "patriotic" groups, namely, the California Young Republican College Federation, and the Young Americans for Freedom chapter at UCLA. "Their court action," says the article, "specified that its purpose was to prevent the *Bruin* from publishing 'pornography' and 'material in which the Christian religion was held up to ridicule.'" Unfortunately, the paper had just won the "All American Award" of the Associated Collegiate Press, the nation's top honor for collegiate journalism.

A California organization invited various speakers to address their members, one of which was John Roussetot, a former Congressman and member of the Birch Society. Later the group invited Frank Wilkinson, secretary of an organization that wants to abolish the House Committee on un-American Activities, to speak to them. A furor arose, and one woman, evidently on the verge of insanity, screamed, "Everyone knows John Roussetot is a good American, so he has every right to speak."

One wonders when this absurd state of affairs will end (if it ends at all). The ultra-right wing in America has made it a habit to conspicuously preach
(Cont. on p. 3, col. 2)

Letter . . .

STUDENT SOCIAL TAX JUST??

Once, in a time and place not so very far removed from this one, there was a small feudal kingdom, complete with vassals, serfs, and a king. Now this kingdom was not of the ordinary type. The serfs were not slaves, nor were the vassals the bad guys they are

sometimes cut out to be. These vassals were more like instructors than lords, showing the serfs the most efficient ways of farming and teaching them the value of rational thinking.

Needless to say, this kingdom was unique. It came to be so

popular that the king, King Og, was forced to limit the number of serfs he would allow to live under, and benefit from, his rule. You see, he encouraged his vassals to help the serfs, even selecting them on their merits as
(Cont. to p. 3, Col. 1)



WORLDWIDE
Speaks!

by Gerry Axlerod and Sandy Malcolm

WHY WORK ON COMMITTEES?

Right now, Worcester Tech is undergoing a period of many changes. Many new innovations have been instituted—most of which were not even dreamt of ten years ago. However the main problem with being able to continue this up-dating and liberalization is securing the large number of willing and capable men necessary to accomplish this task.

It is relatively easy to induce someone to work towards realizing a goal which he himself is going to be able to enjoy. The hard job is finding men to work long-term goals—goals that will not be realized until long after they have left Tech.

Perhaps the problem could be alleviated somewhat by prompt action by all the groups involved. This, however, is not feasible with the present system of organization. A recommendation or proposal could conceivably be stalled for years just going from one group to another. For example a recommendation by a student sub-committee could be treated in the following fashion. After leaving the sub-committee, it would go to the parent committee as a whole. Then the Executive Committee of the student government would have to pass it before it could travel on to the administration level. There it would probably be brought before the Faculty Executive Committee which might refer it to the appropriate faculty committee. After leaving the faculty committee, it could go back to the Executive Committee and then to the faculty as a whole. If it dealt with a problem of major importance, the final decision would then be made by the Board of Trustees.

Keeping in mind that these groups have meetings only at periodic time intervals and that the length of time between meetings increases as the group's rank in the hierarchy is increased, it is easy to see that there might be long periods between the recommendation's consideration by one group and the time of its introduction to the next group. And don't forget that there are many other items also before these groups and it might take several meetings after the recommendation's introduction before a decision is reached as to its fate.

Since every innovation presently enjoyed by Tech Students is the result of a determined effort by an earlier group of students, one cannot help but appreciate the importance of their work. It is not as easy to appreciate the work presently being done because the benefits will not be realized in most cases, by Tech's present undergraduates. The seniors working on the ROTC committee will not benefit if their committee drops compulsory ROTC, but a future class of freshmen will appreciate their efforts. Likewise the juniors and seniors on the Academic Committee will not be affected by recommendations that they make concerning a Pass/Fail System or Student Evaluation of teachers, but their actions, if accepted, will improve academic conditions for future students.

It takes a man with a certain type of higher optimism to devote his time and energy toward improving conditions at Tech that will not be enjoyed by him but rather will be enjoyed by students that will follow him in future years. It is a pity that such a man is the exception, while the majority of men will not work to improve their own conditions—much less even care about anybody else's conditions.

S.M.

Social Tax

(Cont. from p. 2, Col. 5)

instructors. Well this was all well and good.

Jousting was the rage at this time, and naturally, whenever a serf could get some time off from his labors, he would spend what little he could save to see one of these jousts. Good tournaments were expensive, and the common serf was hard pressed to save anything above what was due his lords. Of course, he did not begrudge his lords their tax money. They were certainly teaching him valuable skills for the future. But still, he did like tournaments, and it was on these that he usually spent what he could save. If he could not save the dough, he simply did not go.

Well, for a period of several years, the kingdom was unable to attract any knights of championship caliber for its jousts. As a result, interest in this sort of thing fell off, and those who still enjoyed a display of fine pagentry and knightly courage had to travel to the bigger kingdom next door. Then Shots, one of the more well off serfs, and a man who did not like the inconvenience of travelling about to see good bouts, came up with an idea.

"Suppose we could get all of the serfs to chip in a little and build up a large reserve of prize money. Then surely we could attract some big name fighters. Once again this kingdom will ring with the sounds of coronets and of lances splintering on shields."

"Yeah, it is a little embarrassing when someone from the next kingdom asks what kind of entertainment we've been having lately."

"Sounds like a good idea, Shots. But suppose some of the serfs won't support it? The way I see it, they'll all have to support this thing or we'll never get enough money to attract a knight who's worth his armor."

"So, we'll get the king to ram it through sort of as an added tax or something. That way, they'll have to pay it or leave the kingdom."

"Isn't that a little harsh?"

"Look. Do you want good jousts or don't you? We'll call a meeting, vote it through, and it will be settled."

"What if the serfs don't like it?"

"We'll get enough of them there who do, be free with the ballots, and worry about that later."

"I don't know, Shots, it could cause some trouble. That's really not the spirit of 'chipping in' you know."

"Aw, don't worry about it. There are enough serfs here with outside incomes to more than pass this thing."

So they voted and passed the Tournament Tax. And there it was. A few problems, however, began to take shape at this time.

For instance. Some of the serfs living in this great kingdom were just managing to get by on what they could earn. They felt fortunate that they had been able to meet their last tax payment, and they were a little uneasy about where the next payment was coming from. They liked tournaments, of course, but before this new tax, they had tried not to get bugged at the fact that they could not afford to see many of them. Now, they had to pay for them or leave the kingdom. What is more, when they could find time to go to a tournament, to their dismay, they were met at

the lists with an additional admission fee. Some of the serfs just did not have it. These were the most vocal of the men who felt that the Tournament Tax was oppressive and wrong. Sure they had been there to vote on the tax measure but to them the election seemed a farce, and they had a pretty good idea of how much their vote had meant in the final analysis.

Then there was the question of which knights should be approached with bids to come and fight in the kingdom. Some knights were more popular than others, but this was a matter of taste, and it varied from serf to serf. Who was to decide upon the competitors? Well, a council of the more influential serfs got together and voted on who was to compete. Their decision determined which men would be allowed to compete for the prize money of the kingdom. It also determined the quality of the knights that the serfs would be able to see.

Grumbings started around the time this new tax was first collected. They were only minor rumbings, but they got much louder the first time one of the 'selected' knights failed to turn in a good performance on the field of battle. The serfs were beginning to realize the mistake they had made, and soon they began a petition to repeal the Tournament Tax. You have to give them credit. If they did not like something, they made themselves heard.

After a period of time, the council of serfs which had first proposed the Tournament Tax met again and modified the measure a little. Rather than making payment of the tax a requirement for residence in the kingdom, they instead offered membership in a Tournament Society, much as they had done with the Yeoman's Society. Those who joined paid a membership fee and got reduced prices for quality tournaments. Those who did not join had to pay full price.

The advantages of this arrangement were immediately evident. Those serfs who could afford to join the Society were assured of quality entertainment. Those who did not join, for financial or other reasons were not required to pay for a joust unless they went to one.

Well, all was fine and dandy again in the kingdom for several years, until once more the serfs began finding it hard to attract the more popular knights. This time, however, rather than force all the serfs to pay, they decided it would be better to travel to the larger kingdom next door than to ask their own serfs to raise the necessary prize money. They felt that a lack of voluntary support could mean more than just apathy. They realized the problems of some of their fellow serfs, and they considered them in their decision. After all they were a unique kingdom.

Sincerely,
David Ireland

LIFE STYLES—

(Cont. from p. 2, col. 2)

freedom and democracy, and then seek to destroy it in every possible way, using the old, once-infallible guise of "anti-communism." They have preyed on people's fear and ignorance and as a result, have countered external threats to American freedom with internal anarchy.

An Open Letter

I would like to thank everyone—students, parents, faculty, and their families for the wonderful support they have given to the Tech Wrestlers during this past season.

Anyone who feels that this campus lacks spirit, should have attended one of our meets.

The Tech Spirit isn't dead... it just needs a little prodding.

Once again, thank you.

Sincerely,
John A. Vino, Coach and the
1967-68 Tech Wrestlers

President Praises Weekend

Dear Arnie:

The Saturday night performance of your Tech Winter Weekend was a very impressive affair, which it seemed to me the fine mixed audience thoroughly enjoyed, as did I personally. I understand that all the other weekend events were just as successful.

I wrote "your" up above, because I think I am correct in recalling that the Weekend was conceived and planned and implemented in great degree by you. I congratulate you heartily for your fine leadership and for your hard work on the many details which such a complex event entails, especially for its initial occurrence.

Overall, I consider that the Tech Winter Weekend was excellent for a real rebirth of spirit on The Hill. May this occasion become an annual event, and may it always be as well administered.

Of course, you were assisted in your arduous duties by many other students. Please pass on to each and every one of them an appreciative Well Done.

Kindest personal regards.

Sincerely,
H. P. Storke

Mr. Arnold J. Antak
President of the Senior Class
Worcester Polytechnic Institute

Blood Center In Morgan

The Bloodmobile is currently at Worcester Tech. Students are asked to donate blood from 11 a.m. to 5 p.m. in Morgan Hall Lounge.

Student representatives in each of the fraternities and in Shield have released slips for those students under 21. The release slip must be signed by a parent or guardian in order for the student to be eligible for donation.

The Pershing Rifles, under the direction of Dan Creamer, has worked in conjunction with Dean Trask to co-ordinate this program.

To encourage participation, a trophy will be awarded to the house that has the best percentage of participation.



by Glenn White

Clark University's *Scarlet* has revealed an announcement by Clark President Jackson on February 23 that John W. Gardner, outgoing Secretary of Health, Education, and Welfare, will present the commencement address at Clark University's seventy-eighth commencement exercises on June 2.

Gardner resigned from the Cabinet to become "head of the Urban Coalition's private campaign to transform the cities of America. The Urban Coalition, an organization of business, labor, religious, local government, and civil rights leaders, proposes to mobilize committees in every American city to fight urban poverty."

* * * * *

"The Becker Knights, led by scoring sensation Ron Riordan, upended Roger Williams Junior College twice, 116-105 and 103-81, to earn a berth in the Region III tournament," Becker Junior College's *Becker Journal* proudly announced February 29. "The Knights open their quest for a tournament championship this afternoon (February 29) when they face Niagara Community College of Niagara, New York, at the Hudson Valley Community College Gymnasium in Troy, New York."

Riordan scored one hundred and one points in the two contests, including his two-thousandth point for Becker. His season average is forty-six points per game. The *Becker Journal* also featured a bulletin announcing "Ronald J. Riordan was named this week to the first team 1967-68 Basketball All-Region III team by vote of all coaches in the region which comprises New England and upper New York State. He was the only junior college player from Central Massachusetts to make the All-Region III team."

* * * * *

WHY NOT TECH?:

A pass-fail system for juniors and seniors at Southeastern Massachusetts Technological Institute will soon go into effect, the *SMTI Torch* reported March 4. They also commented "Only one course per semester may be selected on a pass/fail basis. Juniors and seniors will be given five weeks from the opening of each semester to decide on a course. No changes will be allowed after this period. The student and registrar alone will know that the student has adopted the Pass/Fail option. The student will undergo the same grading procedure with the faculty as before.

"This merely means that a Pass/Fail student whose work ranges between A-D will receive a grade of P (Pass). A course in which a student earns a P for his grade will count for graduation credits but will not be incorporated into his cumulative average. If a student should receive a grade of F, this shall not be counted toward his grade point average.

"If the course is part of your degree requirement, it cannot be taken under the Pass/Fail Option. If the course

(Cont. to p. 5, Col. 1)

Konfus, on's
KORNER
by Capt. Alan



GENERAL, WHAT IS YOUR OPINION OF ROTC?

Housing Seminar to Be Held in Alden

A seminar on housing will be sponsored by the Worcester Center for Community studies in cooperation with Urban America on Thursday, March 14, from noon to 5 p.m. The seminar will be held in Alden Memorial.

William R. Hirshen, executive director of The Greater Hartford Housing Development Fund Inc. will conduct a general session at 1 p.m. when he will be the main speaker. Under consideration will be low-cost, non-profit and limited profit housing. He will later direct a discussion on Financing non-profit development corporations. Hirshen has had sixteen years experience in the construction, development and financing of multi-family housing and commercial developments. He is a recognized authority on housing under non-profit and Federal sponsorship.

A discussion on the internal organization of non-profit development corporations and the kind of projects they undertake will be directed by Robert McKay, executive director of Citizens Housing and Planning Association of Metropolitan Boston. McKay has been in renewal and rehabilitation for ten years in Chicago and St. Paul prior to his association in Boston.

The final discussion will be directed by Richard Margolis of Georgetown, Conn., a member of the executive committee of International Self-Help Housing Associates, a Ford Foundation proj-

ect, who is also a widely read author in this field. Margolis has recently written "Self-Help Housing in Urban Areas" and "Something to Build On."

Daniel Ashe, consultant to Urban America for New York and the New England area will be the resource person for all three special discussions.

PROGRAM

12:00 noon—Lunch (for "outside experts," Worcester Center for Community Studies, and key members of Worcester groups interested in housing)

1:00 p.m.—General Session—conducted by William R. Hirshen

1:45 p.m.—Three special discussions:

A. "Financing Non-Profit Housing Development Corporations"

Conducted by Mr. Hirshen
B. "Internal Organization of Non-Profit Housing Development Corporations and the Kind of Projects They Undertake."

Conducted by Mr. McKay

C. "Self-help Housing Projects—'Sweat Equity'"

Conducted by Mr. Margolis

Note: Question periods for the special discussions will be of varying lengths, but the whole program will finish by 5:00 p.m.

There will be a coffee break between 3:00 and 3:30 p.m.

Tech's Glee Club to Perform on Tour

On Friday, March 15, at 8:30 p.m., the Connecticut College for Women Choir and the W.P.I. Glee Club will perform together in a concert to be held in Alden.

In this pre-tour concert, the Choir and the Glee Club will perform the Schubert German Mass. They will perform with full orchestration, which will be provided by members of the W.P.I. band and the Coast Guard Academy band. The two groups will also sing the Schubert German Mass on April 5, when they will perform at St. Thomas, on Park

Ave, in New York City. The performance will be the last part of the Glee Club Tour.

The Connecticut College Choir has just recently performed with Hamilton College, Trinity (Hartford), Yale, and Wesleyan. The director of the Choir is James Armstrong, who is a candidate for a Ph.D. in Music at Harvard.

The W.P.I. Glee Club, conducted by Professor Louis Curran, has just returned from a concert with Russell Sage College in Troy, New York.

English-- Science Lecture

At noon, on Friday, March 8th, a special lecture was held in the Olin Lecture Hall for both sections of English 406. The topic: Some Optical Problems in English Literature by Dr. Edward S. O'Neill, Professor of Physics, WPI.

Dr. O'Neill opened the lecture with a history of optical technology. It is surprising that the realm of optics dates back as far as 1200 B.C., covering a period of time from Moses to Marx. The most notable accomplishment of this time being the invention of the telescope in 1608. Dr. O'Neill also went to discuss Maxwell's equations and Einstein's photo-electric effect. Dr. O'Neill made the startling statement that our level of ignorance and the acquisition of new knowledge was comparatively greater than in Galileo's time. He went on further to say that people were more thrilled by looking at the moon through a four-hundred power telescope in Galileo's time than pictures sent from satellites on the moon back to earth in our time.

Dr. O'Neill then went on to discuss the importance of optical advances on English literature. He stated that the sudden change of looking at the universe from one power to four-hundred power could have possibly influenced Milton's writing "Paradise Lost" and Swift's writing "Gulliver," but he also felt that Milton would have written an epic poem anyway. In conjunction with this, he felt that optical technology did influence Swift.

Dr. O'Neill concluded his lecture by drawing an analogy between the understanding of electromagnetic waves and the universe itself.

Senate Discusses Pub, Dinner Dress

The Tech Senate held another open meeting in the Library Conference room on Monday, March 4. Bob Woog, President of the Tech Senate, presided over the meeting and began the discussion.

He and Bert Gunter had gone to see President Storke about eliminating coats and ties at dinner for dorm residents. Their efforts were not successful. The Dormitory Committee will continue debate on the subject and issue a statement in the near future.

Three petitions for president and three for social chairman have been turned in to Woog. Seniors on committees will help with the election which will be held Thursday, March 14.

Jim Raslavsky, student Activities Chairman, announced that a form for a beer and wine license for the "Goatshead" has been obtained and will be sent in. The total cost of opening the Goatshead will be 450 dollars. This includes incorporation of the club, lawyer's fees and the license itself which is 200 dollars. March 22 is the tentative grand opening date for the Senior club.

The financial Board plans to circulate a questionnaire this week about the stores students want for the Discount System.

The meeting was attended by a few interested students with the final meeting under the present officers to be held on March 11.

New Financial Board Attempts Discount System

The new W.P.I. Financial Board has taken over the job of reviewing club budgets and it is also attempting to establish a student discount system along with Clark, Holy Cross, Assumption, and Anna Maria.

The task of reviewing club budgets has been taken over from the old Council of Presidents. Club budgets will be due April 15 this year, instead of the usual May 1. The books will be reviewed three times during the year, something that has never been done before. Also, the budgets of clubs will be compared to insure equality of expenditure. At the end of the year, all unexpendable money will be placed in a reserve fund for clubs that may go over their budgets.

The Financial Board is trying to set up the student discount system by the end of this year. The aid

of the United States National Student Association has been enlisted for the usual policies employed in securing discounts. From a survey of Tech students, the most popular stores are Kennedy's, Ware Pratt and Shack's. The Financial Board will soon approach these popular stores in hopes of getting up to a 20% discount. Fraternities are already receiving discounts at Waite's Hardware and Bay State Hardware.

Mike Babin and Frank Verderber are co-chairmen of the Financial Board. Serving on it are: Dean Brown, Professor Corey, Ken Kopka, Mark Gerber, John Thompson, Steve Bernacki and Ralph DiIorio. New Chairmen will be picked soon, but Mike Babin and Frank Verderber will stay on the committee to insure a smooth change over.

Food Committee

On Monday evening, March 4, the Food Committee met to discuss student suggestions concerning cafeteria service. The committee consists of student members Toby Bashaw, Herb Coulter, Jim Kinley, Craig Milner, Rich Shillalies, and Kent Vanheukelom. Administration representative is Dean William Trask, and Food Service representatives are Mr. Ronald Lombard and Mr. Bud Hosking.

The purpose of the committee is to communicate the wishes of contract-card holders to the cafeteria personnel. Its effectiveness depends on the co-operation of the students, who are urged to bring any comments or questions to a student member of the committee. If a serious problem arises which requires immediate attention, they may ask to see Mr. Lombard or Mr. Hosking personally.

Craig Milner

Tech Instructor Amazeen Investigates Heart Disease

A revolutionary system of detecting heart disease and disabilities could well be the result of a research project being conducted by W.P.I. instructor and doctoral candidate in bio-medical engineering, Paul G. Amazeen.

The project concerns itself with the signal processing of electrocardiograms (EKG). Extreme changes in the functioning of the human heart is easily recognizable from the EKG. Continuous readings of the electrocardiograms are seen in the hospitals on closed circuit television screens. When obvious changes occur in the EKG pattern, doctors and nurses rush to the aid of the ailing heart patient.

There are, however, very small — almost undetectable — changes which are recorded on the EKG, but which the human eye cannot easily discover. These minute deviations in the EKG pattern could hold the key to early detection of heart disease. It is the problem of Amazeen and his co-workers to filter out the relevant signals and to determine their significance.

A direct telephone line will soon be set up from the Levine Cardiac Car Unit of the Peter Bent Brigham Hospital, Boston, to a hybrid computer on the Tech campus. Readings from the electrocardiograms of these heart patients will be transmitted to Worcester on a 24-hour a day basis. The hybrid combines a digital and an analog computer which allows for continuous interpretation of the heart impulse. The computerized information will then be relayed back — via the special phone line — to the hospital in Boston.

Assisted by Dr. Bernard Lown of the Harvard School of Public Health who is medical director of the project, Amazeen's research holds important possibilities for future use. If the experiments prove successful, the computer system will be built at the hospital itself where full-time specialists will be able to determine danger signals of heart patients. Eventually, a 24-hour EKG examination may give sufficient warning of a heart disorder to a seemingly healthy person.

Dr. Charles L. Feldman of W.P.I.'s mechanical engineering department has also been instrumental in designing a system to filter the signals of the heart from impulses of other body muscles.

TECH SENATE ELECTIONS

Thursday in Alden
from 8:00 to 5:00

VOTE FOR STUDENT BODY PRESIDENT
and
SCHOOL SOCIAL CHAIRMAN

HIGHLAND RX
PHARMCY
RELIABLE PRESCRIPTIONS
140 Highland Street
PL 6-0594 Worcester, Mass.

THEO'S
CHAR-STEAK HOUSE
BREAKFAST—LUNCH
DINNER
151 HIGHLAND STREET

COLLEGE COLUMN—

(Cont. from p. 3, Col. 5)

is part of your major it may be taken on the Pass/Fail Option only with the consent of the department. Language and science requirements cannot be taken on the Pass/Fail system. In the College of Engineering, the humanities and social science requirements may not be taken on the Pass/Fail."

* * * * *

The Council of Graduate Schools of Cal Tech has issued a statement on the new draft policy on graduate students, *California Tech* announced February 29. Four basic principles were endorsed:

1. National security is the "obligation of every able-bodied citizen . . . neither graduate nor undergraduate students should be deferred or exempted from such service."
2. "All fields of higher education are of equally critical importance to the continued welfare and the balanced development of the nation . . . we recommend strongly against the designation of any disciplines in which students may be eligible for deferment and others in which they may not."
3. ". . . the selection process should take place at a natural time of transition . . . at the completion of high school. Students who . . . have been deferred to pursue a . . . degree should not be inducted until they have completed their immediate degree objective."
4. ". . . draft-eligible men should be inducted on the basis of random selection upon reaching the age of nineteen. Men who have been deferred to pursue a degree should, upon completion of that degree, be constructively classified as nineteen-year-olds. . . . Men who are not drawn in the year of their prime classification and who wish to pursue a degree program should not be in jeopardy again until they have completed their immediate degree objective."

NEWS SHORTS

The Physics Department is holding a colloquium on March 9, 1968. Robert W. Hermes of the WPI Physics Department will talk about "The ESR Determination of the Spin Hamiltonian of Fe³⁺ in a Tetrahedral (FeCl₄)—Complex." The colloquium will start at 4:15 in Room 214 of Olin Hall.

On Wednesday March 20 at 4:00 P.M., the Chemistry Department will hold a joint colloquium with Clark University. Dr. Anthony Trozolo from the Bell Telephone Research Laboratories in Murray Hill, New Jersey will speak on "The Role of Singlet Oxygen Molecules in Photo-oxidation." The talk will be held in Room 108 of Jeppson Laboratory at Clark.

The Justinian Pre-legal Society, an undergraduate club for pre-law students at Assumption College is presenting a Moot Court Exhibition based on the case of Robert Banner. It will be held on March 14 at 8:00 P.M. in Maison Francaise. Three-man teams of students from Syracuse University, and Boston College

will argue the two sides of the case. The exhibition will give the audience a chance to observe the procedure of an appellate trial on a topical controversial issue: the limits of freedom of speech in public demonstrations. A student, Robert Banner (fictitious) held a demonstration to protest the draft. He burned the American flag shouting, "The American dream has been perverted." He was arrested and indicted. He was dismissed by his university. Banner argued that his right of free speech was violated. Admission is free.

Dr. Robert Eddy, of Tufts University, will speak on TOPS at the March meeting of the Skeptical Chemists, Tech's student American Chemical Society chapter. TOPS stands for Tested Overhead Projection Series, used in chemistry lecture demonstrations. Dr. Eddy has been a TOPS representative in Paris for a UNESCO conference.

The meeting will be held in Goddard 227 on March 19, 1968 at 8 p.m. Refreshments will be served.

Two Tech Seniors Develop High Speed Photography

Two senior Mechanical Engineering majors at Worcester Tech have developed a system of high speed photography and are presently using it for testing the strength of various materials. Edward Harper and Walter Sackmann are using the system to observe and calculate velocities and energies of bullets fired through materials. For less than \$40, Harper has set up the equipment and within a week the team began operation. The system employs two flash bulbs triggered by sound waves and double exposure photos to calculate how much energy was absorbed by the material being

tested. As the bullet leaves the gun barrel, it passes over a microphone and its shock wave trips the flash bulbs. A photograph results with two pictures of the bullet superimposed. By measuring the distance between the images and knowing the time interval between the pictures, the bullet's velocity and energy can be calculated.

One company recently paid \$1100 for instruments which accomplish the same task as Harper's system. The system is composed of an old television chassis, a twelve volt battery, and flash devices made from aluminum funnels, test tubes, and assorter wires.

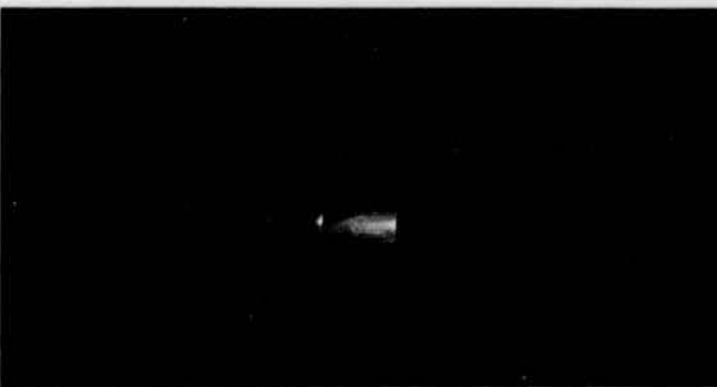
Harper, who spent 3 years in the Navy before returning to Tech last year, is due to graduate this June and has accepted a graduate assistantship in the Mechanical Engineering department. He is planning on doing his masters thesis on his experiments with his equipment.

In tests made during the interview, it was possible to see the bullet "Stopped" by a single flash bulb, thus photographs of this can be done easily.

At present, the system is used by Sackmann to test material strengths. In the future; however, it may be used to view stresses undergone by meshed gears at high speeds.



Ed Harper (left) and Walter Sackmann prepare for speed test.



Double exposure of High Speed Bullet

ROTC COMMITTEE—

(Cont. from p. 1, col. 5)

notably Holy Cross. Colonel McClain stated that this arrangement doesn't seem practical at this time because the ROTC programs at Holy Cross are presently filled.

Senior John Dubiel presented the findings of a survey he took among undergraduates. The consensus of opinion was that the present ROTC curriculum could use some improvement. "This," says Dr. Kranich, "will be a major task of the committee as a whole."

It was also announced that Col. McClain would be visiting two Long Island colleges, Hofstra University and Polytechnic Institute of Brooklyn, to investigate their ROTC programs. Hofstra converted from compulsory ROTC to a voluntary arrangement last spring and initially there was little change in the program. Now, however, enrollment in the program is considerably reduced. At Brooklyn Tech, a school quite comparable to WPI, ROTC is also voluntary; but there enrollment is also quite limited. Colonel McClain's objective is basically to investigate their problems, to ascertain their mistakes, and to consider their recruiting policies.

At a recent interview, Colonel McClain expounded on Army policy at Tech. "The dedicated student will take ROTC even where it is an overload." Colonel McClain stated that "the Army is neutral. The Army will support a voluntary program at Tech if that is the decision of the Board of Trustees. The Army will uphold school policy."

The next meeting of the ROTC committee will be on Thursday, March 21. At this time, Colonel McClain will present his findings. The ROTC committee members are: Dr. Kranich, Lt. Col. McClain, Mr. Gordon Branche, Mr. Richard Greene, Dr. Harold Hilsinger, John Dubiel, and Robert Pleines.

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J.P.**

Dorm Counselor Applications

Applications for dormitory counselor positions during the 1968-69 school year are now available in Room 206, Boynton Hall.

Each applicant will be asked to take a personal interview as well as having his application filed by the deadline date of April 15.

Stipend for the counselors, who must be juniors and seniors, will be room and board.

COMING SOON:

BAKE SALE

Friday, March 22, 1968

in Morgan Hall

sponsored by

Worcester Tech Wives Club

**ECK BROTHERS
TEXACO STATION**
77 Highland Street
Worcester Massachusetts

**THE TECH
PHARMACY**

TECH 7th IN N.E. TOURNEY

POLIZZOTTO, GROSCH, ESHCHBORN PLACE

The Worcester Tech wrestling team journeyed to New London, Conn. at Coast Guard last Wednesday for the annual New England wrestling tournament and found the trip a quite rewarding one.

As a team, they placed seventh out of a field of the 24 top wrestling teams in New England. This showing firmly establishes Tech as a solid wrestling team.

Individually, there were three Tech men who came very close to winning New England championships. Of the three, Lenny Polizzotto (130) finished highest. Lenny, who was only beaten once this year, won his first three matches of the tournament to place him

in the finals. In the finals, Lenny, only a sophomore, lost to a senior from Springfield, the team that ultimately won the tournament.

Pete Grosch (145) also started the tournament well, as he won his first two matches. He then lost his third match in a heart-breaker by a single point. Pete, then advanced to the consolation bracket, where he won his two remaining matches. In his final match he met a rival wrestler from Coast Guard and pinned him in the third period. This win entitled Pete to the third place trophy.

Ralph Eshchborn, the last Techman to place in the tournament, didn't get off to a very good start.

He lost his first match. Ordinarily, he would have been eliminated from the competition, but the man who beat him made his way to the finals, thus allowing Ralph to continue. In his next two matches, Ralph beat his opponents, thus advancing him to the final consolation match. He lost this one and finished fourth.

Others participating in the tourney were: Bob Grillo, Rit Simoneau, Scot Wilson, John Korsick and Phil Warren. Freshmen Don Obrien, Greg Dickson, and Paul Benick also saw action in the Freshman tournament.

All in all, coach Vino was very pleased with the teams showing. It seems that he must be looking forward to next season with great optimism as the three wrestlers who placed in the New England's will be back again next year, along with Fred Snyder, who, due to an unfortunate situation, was unable to make the trip.



Lenny Polizzotto displays style which carried him to the finals of the New England Wrestling Tournament at Coast Guard last week.

Sports Slants

J. F. Referees

Last Saturday, March 9, marked the opening of another Interfraternity basketball season. As in the past, the athletic department has obtained the services of the varsity basketball players and students who have played basketball for Worcester Tech as referees for these games. It has always been a problem to obtain good referees. Mr. Devlin has done a creditable job in selecting the most capable refs that he could find.

In these hotly-contested games, the referees often play the "goat" role in the spectator's mind. The fan always expects the call to go his team's way, and when it doesn't he blames it on the referee. This is especially true in the case of an offensive foul which is very difficult to call either way.

The spectators and the players must realize that these student referees are doing the best job that they can. They know the rules of basketball but most of them have not had too much experience as referees. It will be much easier for them if the fans do not get on "their backs." It will be even harder for the referees to call a "clean" game in the narrow crowded courts of Harrington.

These students have been playing and participating in basketball games for years. Most likely, they are more acquainted with the rules than anyone else. Let's not jeer them but respect them for their knowledge of the game. Remember, these kids are giving up their time for the fraternities to enjoy this competition. If the fans can act like college men and when their teams lose, they don't put the blame on the refs, it will be a much better I.F. season.

SHOCKLEY—

(Cont. from p. 1, col. 3)

solid state physics research program. In 1954, he was named director of transistor research at Bell.

A year later, he joined Beckman Instruments Inc. and established the Shockley Semiconductor Laboratory in Palo Alto, California for the research, development and production of new transistor and other semiconductor devices. This became Shockley Transistor Corp. and a subsidiary of Beckman Instruments and in 1960, Clevite Corp. acquired them. Dr. Shockley continued as their consultant until the company was taken over in

1965 by International Telephone and Telegraph Co.

In 1963, Dr. Shockley became Alexander M. Poniatoff professor of Engineering Science at Stanford University, which post he presently holds.

Dr. Shockley has received numerous prizes and awards from engineering, science and learned societies. He has received honorary doctorates from University of Pennsylvania, Rutgers University and Gustavus Adolphus College.

In addition to articles in scientific and technical journals, he has written or edited several books. More than 70 United States patents have been granted for his inventions.

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Tuesday, March 19

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