

Newspeak

The student newspaper of Worcester Polytechnic Institute

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Recommends more student-advisor contact

CAP reviews the Competency Exam

by Tom Daniels

A greater percentage of students are passing their competency exams than ever before, but the faculty and administration aren't just sitting back and congratulating themselves. Dean John van Alstyne told this reporter that he would eventually like to see a passing rate of 85 per cent or better. "Most of the national exams average around 85 per cent," he said. "For instance, the Engineer In Training exam has a passing rate of about 83 per cent." The current rate of 80 per cent, however, does represent a significant increase over past years.

The Dean cited several reasons for the increase, such as experience gained over the years in administering. This last statement should not be taken as meaning that the exams have been made easier, however. "I'd say that these last exams were probably harder than previous ones," said van Alstyne. "It's just that we've learned from experience what preparation a student needs to pass." He said that courses are now more apt to ask open-ended questions such as would be found on a competency examination.

"The students that I've talked to actually enjoyed the competency exam experience," he said, adding that those students included several who had not passed. He told of one student who had gone into the exam with great apprehension, and had spent the first nine hours or so totally lost. After a point, though, things began falling into place and he soon worked up a great feeling of professional confidence.

"This sense of confidence in one's ability to do professional work is one of the things we like to see develop from the Competency," he said.

The Committee on Academic Policy presented a series of recommendations regarding the competency exam and other questions at the December faculty meeting. Copies of their report have recently been redistributed to faculty members for their inspection. Professor C. W. Staples, chairman of the committee, has expressed the CAP's concern that the report should be presented to the student body "so that they can better understand the function of the advisor and the importance of cooperative work in developing and implementing the student's individual plan." The following is a copy of the Committee on Academic Policy's report:

TO: The Faculty
FROM: Committee on Academic Policy

SUBJECT: Competency Examinations
The Committee on Academic Policy has been considering a number of competency exam related questions since September. In this effort the CAP has been aided by the report of last summer's Ad Hoc Competency Examination Study Committee. Both committees have recognized troublesome problems related to the competency examination but both committees have also recognized several positive aspects of the present examination.

The competency examination, as it is presently designed, is generally accepted by both faculty and students as a valid test of many of the Plan's objectives. Some further refinement should probably be carried on at the department level to assure adherence to the Plan objectives for competency examinations. No major changes in competency examination format are suggested.

One of the functions that the examination now serves is to pinpoint areas in which the preparation of students has not been in accordance with the stated goal of the college. It is apparent to many members of the faculty that difficulties with the competency examination are largely associated with inadequacies in the ways in which the Plan education has been implemented. Some of the inadequacies are addressed in the recommendations that follow.

1. It is recommended that each student, with the help of the academic advisor, develop an integrated educational program early in the student's career.

The flexibility of the Plan is not attacked by this recommendation because a well-thought-out educational program, integrating projects and coursework, is a basic Plan prerequisite. This program should be reviewed frequently and revised when appropriate to assure that the student's educational objectives are being met. Advisors should insist upon cooperative planning and adherence to a program as a condition of advising the student. The program should recognize the importance of projects (MQP, IQP, PQP) in preparing for the competency examination.

2. It is recommended that the faculty require that each student frequently be confronted with open-ended and integrative problems in course work as well as project work.

It is clear that the course-oriented education still pursued by many students is

not providing adequate practice in developing problem-solving skill. Course offerings, content, and methods must be reassessed and more emphasis be placed on integrative types of problem solving.

3. It is recommended that qualifying project planning be improved and that oral presentation of projects be implemented.

To assure that the selection of the Major Qualifying Project is consistent with the educational program of the student, the academic advisor should be involved in and approve the selection of the project.

It is the student's responsibility to demonstrate readiness to pursue a particular qualifying project. This readiness will usually be demonstrated by means of a written project proposal in which the objective and method of the project are clearly set forth.

Oral presentations of qualifying project results to audiences that include faculty and/or off campus professionals should be the goal of all qualifying projects. In the case of MQP's, departments should consider means of initiating procedures to assure such presentations.

4. It is recommended that academic advisor certification for a competency examination relate fulfillment of the student's

academic plan to readiness for the examination.

The 1976-77 Operational Catalog on page 12 indicates the faculty-approved requirements for advisor certification. This includes the requirement for a background that is sufficiently integrated and complete to justify the examination. The student's educational program is the logical basis for this decision.

5. It is recommended that departments initiate temporary means of meeting the needs of students who have been unsuccessful in the competency examination.

The faculty recognizes the inappropriate preparation of some students for the competency examination. Departments must take adequate care to provide appropriate remedial programs as outlined in the 1976-77 operational catalog, page 12, under "repetition of failed examinations." This may mean the temporary offering of remedial sessions.

The extent to which the recommendations are implemented, a measure of their effectiveness, and recommendations for further faculty action will be determined by a follow-up study to be conducted by the CAP in the near future.

Emergency expenses

Commuter fund established

by Tom Daniels

The family and friends of the late Peter Hull have established a memorial fund in his name, according to Dean John van Alstyne. Peter was a student at WPI until his death last fall. Although other such funds exist, this memorial is unusual in that it will be used to assist commuters in emergency situations.

Dean van Alstyne says that the fund, which he called "substantial," is available to commuters faced with "some type of emergency." He gave, as an example, a case where a student's car had a flat, and he or she needed some money to either have it fixed or to purchase a new tire. The student could borrow some money from the fund to meet such an emergency. Dean van Alstyne has been named as the agent for the fund, due to the fact that "I'm usually here more hours, especially early in

the morning, when a lot of the commuter's problems are apt to occur." He added that he hoped the students taking advantage of the fund would eventually pay the money back, "so that the fund will continue to grow in the future."

Contributions to the fund have come from many sources, thereby making it "larger than usual." While other such funds have been established in the past to help pay for such things as room and board for a student from a particular area or fraternity house, this is the first example of money being set aside specifically to help commuters. Dean van Alstyne lauded the contributors for their generosity, and especially praised the Hull family for their concern in extending this aid to commuters, who he said are generally treated as "second class citizens."

Chemistry head changed

by S. B. Fine

Dr. R. C. Plumb is stepping down as department head of the chemistry department next fall. He will be replaced by Dr. Scala of the chemistry department. Recommendations for new department head were sent by chemistry faculty members to the Committee on Appointments and Promotions. There is little or no formal input from the students on the choice.

Dr. Plumb is resigning as department head so he can spend his full time teaching

and researching. No serious problems are being passed on to Dr. Scala. There are always the problems of budgeting and course re-evaluation, but those are problems any department head must put up with.

Many of the students are doing significant scientific work. The majority of the distinction MQP's are published in professional journals. The WPI chemistry department has a tradition of doing good publishable work.

Your first job

The first in a series of Awareness Programs is scheduled for Thursday evening 7-9 p.m. in the Library Seminar Room. Arthur Pingaloro, Heald Machine Co., Worcester will discuss problems encountered during the initial weeks of "Your First Job", i.e., moving, housing, vouchers, expense and traveling arrangements etc. Open panel discussions will follow.

During C and D terms we hope to bring to the W.P.I. campus professionals in the fields of Marriage, Human Sexuality, Money, Health and any other topic the students wish to know about.

Eileen Weiss
Office of Graduate and Career Plans

What's Inside:

Classifieds	p. 9
Editorials	p. 2
IFC Corner	p. 2
Op-ed	p. 3
The Out-to lunch Press	pp. 6&7
Sports	p. 11
What's Happening?	p. 12
Features:	
What do CERD, Nuke and PIRG mean?	see page 4
The great fish vs. fraternity battle is brought to you.	see page 9
John Broderson has been a standout so far for this season's basketball team. Find out more on page 11.	
Do you speak English or are you from Worcester?	see page 10

Editorials: Hitchhiking: pros and cons

Currently there are three bills pertaining to hitchhiking in the Massachusetts legislature. One bill, number 1119 forbids hitchhiking on any limited access highway. The fine would be \$20. Bill number 1120 forbids hitchhiking on all roads where there are signs forbidding the practice. That bill also provides fines and possible arrest for hitchhikers and anyone who refuses to give his correct name to a police office when the person is on the limited access road where hitchhiking is forbidden. The third bill number 1278, calls for a commission to study hitchhiking and its ramifications on students tourism, and the overall economy of the state.

Hitchhiking is a bona-fide method of travel. Energy conservation people support it or at least imply their support. If a driver is carrying a hitchhiker he is giving two people transportation for the price of one. Hitchhiking is the earliest form of car pooling. But hitchhiking can be very dangerous for the hitchhiker and the person who picks him up. There are many cases of robberies and assaults and even murders of hitchhikers and also of the drivers of the car. There is also the danger especially on a highway that a hitchhiker may be hit by a car. There is one section on route 95 in Providence R.I. that is especially dangerous for hitchhikers. All the dangers and the advantages of hitchhiking must be looked into before any further legislation on hitchhiking is made. Thus House bill number 1278 must be supported; if bill number 1119 or 1120 pass hitchhiking will not be a viable form of transportation.

S.B. Fine
AJG
RJO
SAW
MBH

Higgins House used or abused

Anyone who has had occasion to enter Higgins House lately cannot have failed to notice the deplorable condition of the floors due to heavy traffic from the admissions and financial aid offices. It was a state that did not exist a year ago, and one that is bound to have detrimental effects on the house for many years. Yet, the brothers of Phi Sigma Kappa fraternity saw fit to hold a party in the House last weekend, despite the floor's condition. This is nothing more than inconsideration.

We realize that the offices have to be located somewhere, and there are few free places on campus. We also realize that Higgins House is expensive to maintain, and must be rented out for various functions in order to pay these expenses. However, some types of functions certainly should not be allowed when the condition of the house does not warrant it, and fraternity parties are one of them.

There are other events that do not belong there, and I do not maintain that this is the only violation. This is, however, the most flagrant, since it was a decision by the students themselves, and since it involved a band and other activities conducive to traffic. If we cannot be responsible, we have no right to expect it of others. This attitude will certainly lead to the destruction of a truly beautiful structure.

Rory J. O'Connor
TAD



A jazzed-up Wedge

I came away from the February 7th coffeehouse with two distinct impressions that jazz is an up and coming thing at WPI, and two, that the Social Committee put a little more preparation into their presentations.

On the first point, there were between 75 and 100 people listening to the sounds of the Larry Carsman Jazz Quartet on and off through the night. Such a turnout indicates that more such top flight jazz groups should be booked on campus in the future.

On the second point, preparation by the Social Committee, I feel, that more work has gone into setting up some extra chairs and tables in the Wedge. At the February performance, people were standing and sitting on the floor due to a lack of seating. Hopefully, this situation will not occur again in the future.

In closing, let me send some words of praise out to Pete Kent & Company. Coffeehouses are a great idea for low key, week night entertainment, and, with a few suggestions, should become a fixture on the campus social scene.

So heads won't roll

There was a new feature in Harrington Auditorium at the last basketball game - pads in front of the walls behind each of the goals. It was a wise move on the part of the athletic department, albeit long overdue. There are only eight feet or so from the wall, and a player with enough momentum on the court is very likely to get hurt. The sort of protection the pads provide. In a non-violent (supposedly) sport like basketball, or in any sport for that matter, the safety of the players should not be compromised. It is hoped that this attitude will extend itself to other areas of the program.

Rory J. O'Connor



The Larry Carsman Quartet

Photo by Mark B. Hecker

Staffitorial Coffeehouse babies

by Ken Mandile

It is sad that some people choose to never grow up and it is even sadder that some of these people are WPI students.

A group of these overgrown kiddies were present at last week's Coffeehouse Performance by Roger Salloom. These noisy, inconsiderate, half-drunk brats did not seem to realize that there was anyone else in the Wedge during the performance. Their distracting, senseless mumbling and giggling bothered everyone of the over one hundred people present.

These twenty year old kiddies did not have enough consideration or respect to allow fellow students to totally enjoy the performance by a talented individual. Mr. Salloom must have heard himself being drowned out by the kiddies' noise and I

congratulate him for his patience. What must have been a frustrating evening if I were in his place that evening. I have considered giving a much better performance. Mr. Salloom did not encores regardless of the insulting behavior of the audience. Perhaps the fact that 90 percent of the audience gave him the thumbs down and attention that he deserved helped put up with a small group of inconsiderate morons.

I cannot understand why this group of noisemakers even bothered to attend the performance. They obviously did not want to see Roger Salloom.

I hope that at future Coffeehouse performances these kiddies will grow up and shut up!

IFC Corner: SAE

The Brothers of Sigma Alpha Epsilon held elections last Wednesday night with 25 new officers being sworn in; lead by our new president: Toby Gouker. IFC elections are coming up on Feb. 21st and two brothers are running for offices: Tom Murray for Social Chairman and Jim Miller for Secretary.

On the intramural basketball scene, the A-team has dominated the opposition and is looking toward the playoffs. The B team, paced by Ed "Hammer" Kurdziel has yet to win a game but has provided a couple of exciting contests. Bowling is again strong with a 7 1/2 - 4 1/2 record.

One of the responsibilities of any fraternity is community service. This past Saturday, over 50 brothers and pledges worked a total of 180 man-hours in clean-

up of a home for retarded children here in Worcester. Congratulations to Lambda Chi Alpha for being honored for their Kidnap Party. They had raised more money than ever and should be proud of their fine job.

Another "responsibility" of a frat is to improve the social life. SAE's past Social Chairman, Al Masse and Rick Schmitt did a great job. The total of 6 open houses over the 14 weeks of A and B terms was a success that they had large surpluses. To get rid of this surplus, a party was held 2 weekends ago in which beer was almost free. Supported by many members of IFC and Becker Jr. College, the party was managed to make money. Because of the look-out for another party in which we might have to give the beer away, we have managed to make money.

Newspeak

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Energy Coal as the keystone

by Mark Kelsey

In this article, I will discuss the feasibility of coal, as well as constraints on coal development, to become a major energy resource. President Carter has set this source of energy as a top priority to be developed. I agree with this policy and I believe that coal is an *energy keystone* that must be developed to reduce our dependence on foreign oil and dwindling supplies of natural gas. However, there are a number of constraints and "barriers" to overcome.

First, the market for coal has shrunk since 1940. The railroad market for coal has almost disappeared because oil has now replaced it and the railroads have deteriorated. Also, coal has been replaced by gas on the retail market. Finally, there has been less coal used in manufacturing and cooking due to technological improvements. As a result, the electric utilities industry has become the largest consumer of coal. However, this seems to be the only industry that uses coal to any great extent.

Second, coal production technology should be improved somewhat. If this can be done then it will be a first important step towards making coal our major energy resource. However, unfortunately, there are a number of uncertainties and constraints like deposit characteristics, mining conditions, labor relations, market economics, equipment performance, availability of transportation, financial security, and governmental regulations that make coal production a somewhat difficult task.

Third, only a certain amount of coal in the ground can be mined. Although, even the estimated 7 per cent of the total US coal resources will be enough to last us many years. Yet, many times the distinction between reserves and resources is not made. As you may know, reserves are that portion of resources that can be used. Also, there are a number of misleading statistics that may make coal look almost like an inexhaustible resource. The total remaining coal resources in the US to a depth of 3000 feet has been estimated to be about 1580 billion tons. Of this total, there are 686 billion tons of bituminous coal, 424 billion tons of subbituminous coal, and 450 tons lignite. However, again I must stress that these are *reserves* and not resources. The US Bureau of Mines and US Geological survey find the *reserve base* to determine the amount of reserves. This term, *reserve base*, means "the quantity of in-place coals calculated under specified depth and thickness criteria". Yet, unfortunately, no allowance has been made in this determination for incomplete recovery. This amount may range from 25 per cent to 90 per cent of the amount of coal in a given area. Also, there are many large areas between mines, under cities, in small pockets that are too small for economical recovery, too badly faulted, etc. where the mining is either impossible or otherwise precluded. So, now the recoverability fraction will range from 20 per cent to 35 per cent of the total "in-place" coals. Yet, despite these criticisms the US Bureau of Mines misleadingly states that recoverability would be as high as 50 per cent, which is unlikely. Now, for the hopefully less misleading statistics. A conservative estimate of the amount of coal recoverable through underground mining is 75 billion tons combined with the less conservative estimate of 45 billion tons through surface mining giving a total of 120 billion tons, 8 per cent of US coal resources. However, again, these estimates were made by the US Bureau of Mines which I believe has a certain propensity for slight exaggeration.

Fourth, in generating a given amount of heat for production of electricity, a utility would have to use much more of the low-BTU coal than that of the high-BTU coal. As a result, a man by the name of Rieber found, using a standardized heating value for coals used by electric utilities, that "conventional estimates of both known resources and recoverable reserves of low sulfur coal are grossly overstated." So, as you can see, statistics can be misleading. Under this hopefully less misleading system a large portion of US coal resources is reclassified in high sulfur categories by making the amounts of low-BTU coal and reducing the amount to equal the same amount of heat that would be generated by a given amount of high-BTU coal. Under the standardized estimates of resources

there are 155,077 billion tons of resources and 16,459 billion tons of reserves compared to the conventional estimates 626,500 billion tons of resources and 68,185 billion tons of reserves. As a result, under the standardized estimates no recoverable reserves of lowest sulfur coal would be completely exhausted before 1985. Therefore, it has been suggested that revisions of air quality standards may be needed. However, being the environmentalist that I am, I would only like to see slight revisions if any at all. I believe

Op-Ed:

that pollution control technology must be improved in this area in order for coal to reach its full potential as a major energy resource.

Fifth, extraction and preparation of coal has advanced and improved recently, through a series of trial and error activities, but many mining methods cannot run at full capacity. There are three methods of deep mining: Conventional, continuous, and longwall. In conventional mining, a set of specialized equipment performing specific tasks in an established sequence is used. However, because of the sequential nature of mining the productivity is low compared to other mining methods. In continuous mining a single machine is used

to remove coal from the working face. This eliminates many separate steps used in conventional mining but results in the production of much coal dust. As a result, the mining rates must be reduced to control the dust. In longwall mining a long panel of coal, from 200 to 500 feet across and up to 1500 feet long, is mined. This method has the highest productivity known in deep mining, but is limited to coal reserves where physical conditions are favorable. Also, this mining method could generate large volumes of coal dust which is hazardous to the workers. Because of these and other constraints even with the latest mining equipment, the operations are such that full productive capacity is rarely realized. In surface mining, the methods have advanced greatly in recent years, primarily as a result in the introduction of giant excavation and haulage equipment. There are three types of mining in this area: Contour strip mining, augur strip mining, and area strip mining. The area strip mining methods takes place on flat land whereas augur and contour strip mining occur in the mountains. This results in erosion, acid drainage, and scarred landscapes, but with new efforts to control pollution from the strip mining area and reclamation of the land these undesirable effects can be discarded.

Sixth, the research and development in coal mining should be improved to increase productivity and make health and safety in the mines a number one priority. Also, there should be work on novel methods to mine the thin eastern deposits and the thick western seams in particular. These objectives could be achieved with improvements in present systems and the development and improvement of new technologies.

Finally, there are a number of other constraints and "barriers" to overcome that I will discuss briefly. Our present transportation system has roads and highways as a very vital part of it. Un-

fortunately, railroads have had to take a back seat to this form of transportation and have deteriorated considerably as a result. I believe that we need to build more railroads, improve existing roadbeds, increase the supply of hopper cars, and decrease regulations over railroads that would be restrictive to their overall growth. Also, the development of slurry pipelines, if water supplies are available, to transport coal would be desirable. Also, the availability of labor is another constraint that can be solved by increased mechanization to better mining methods like the longwall method since the skill of miners required for operations is inversely proportional to the degree of mechanization represented by mining technology. Furthermore, the expansion of coal production capacity will raise a great need for large capital investments. Even the research and development effort, believe it or not, could be a constraint to coal development. The uncertainties of what R&D will produce and the prospect that many research and development efforts fail could make the development of coal a lesser priority among many government officials. However, I still believe that this R&D must continue but that these efforts should be widespread and managed carefully, responsibly, and prudently to be sure that the efforts justify every dollar that is invested in them. More attention should be shifted to interrelations among components of the coal production system, also. Finally, environmental regulations could also prove to be a big constraint on the development of coal as our major energy resource, but with the development of new pollution control technologies this constraint could also be overcome.

Source: Annual Review of Energy, ed. Jack M. Hollander, assoc. ed.: Melvin K. Simmons (Paulo Alto, Cal.: Annual Reviews Inc., 1976) pp. 37-62.

Give
The Gift of
Life
Blood Drive
Tues. - Feb. 22
Wed. - " 23
Thurs. - " 24
Wedge
10-4

So Join the Bloodline

Donors can win one of many cases
of Beer that will be raffled off

The unabridged WPI dictionary, 1st edition

by Tom Daniels

- AC — what an electrical engineer better not plug a DC motor into
- AD — a milestone in WPI history; denotes After Daka
- B&G — Bump & Groggy, a weekly social event for researchers who work in the PUB
- BECKER — a certain class of females who are constantly beckoning to Techies
- BIOMED — describes condition when one is bombed with synthetic bio homework
- BOOKSTORE — WPI branch outlet for Tiffany's of Park Ave.
- BSU — Union of those who have passed their competency exams
- CERD — what your job interviewer better be
- CHEMENG — wine, served at CURLEYS, made in basement of Goddard Hall
- CIVIL — what you are to a six foot four, 250 lb. fraternity brother
- CONSORTIUM — a twelve piece chamber orchestra in which none of the players knows what the other is doing
- CROSS — Rory O'Connor fan club. Current pres., Chat Kulus
- CURLEYS — center for top level conferences among WPI staff and students, esp. popular with RAs
- DAKA — obscure German word meaning "I wasn't hungry anyway."
- DEAN BOLTZ — screws used to secure beams in high iron work
- DEAN SHERER — barber who cuts administrative figure's hair
- DEC 10 — what a bridge player uses when DEC 9 was marked
- DIFFY Qs — new dessert served in the WPI cafeteria
- DISCO NIGHT — flying saucer watch party sponsored each Wednesday night by Sci-Fi society
- DOUBLE E — what one hears when two co-eds find a mouse in their room
- DST — powerful insecticide used to get rid of GWEEPS
- ETA KAPPA NU — what one distraught Techie did when he got sick of DAKA food
- EGGIMANN — person who buys by-products of Life Science Dept.
- WOOSTAH project
- FIJI — WPI's South Pacific Intern Center
- FRAT PARTY — group of brothers interested in politics
- GEORGE — developed as an all purpose vehicle. Officially Geographically Engineered Overland Roving Great Experiment
- GOHPEC — new board game involving eggs and chickens. Invented by W. EGGIMANN.
- GWEEP — creatures of little use that infest the basement of the library
- HACKER — member of the WPI golf squad
- HAZZARD — the WPI parking lot after a snowstorm
- HIGGINS HOUSE — nickname of that rare animal, the white elephant. Has replaced the goat as WPI mascot
- HILLSINGER — one who holds membership in the Glee Club and Mountaineering Club at the same time
- HP — Hopeless Punter; one who flunks PE-1000
- IFC — mathematical condition. "If C, then..."
- INTERSESSION — polite name for period when new students can register and change courses
- IPI — Individually Prescribed Insanity. Describes system which allows one to get into situation described under PUNT
- IQP — I Quit, Period. Password used to gain entrance to KAP meetings
- KAP — WPI brotherhood of Kooks And Punters
- KAVEN — what usually happens when a WPI civil engineer designs a roof
- LENS & LIGHTS — what one needs to read the fine print on a WPI Student Loan Contract
- MAIL ROOM — WPI version of the Bermuda Triangle
- MASQUE — association of Cumberland Farms stores hold-up men
- MICKEY MOUSE — administration-leader-student bargaining group. Officially, "Management of Independent Colleges and Knowledge Elevating Yeomanry — Majority of Oppressed Undergraduate Student Engineers."
- MIT — Money is Tops. Motto of an obscure Boston college
- MQP — Measured Quantity of Paper. Grading system used for WPI project work
- NEWSPEAK — outlawed group of radical literate engineers
- NUKE — National Union of Kneepad Engineers. Honor society for members of football squad
- OLLIE — cry frequently heard in the Pub. Part of a WPI drinking ritual
- PEP BAND — random noise generator developed by Electrical Engineering Dept.
- PEDDLER — de guy what sells the stuff in de back ob de Pub
- PIRG — People in Ralph's Grace. Cult of scientists who pray to the god Nader.
- PLAN — most often followed by FIVE YEAR. A Communist plot to control the economy
- PROJECT CENTER — one time meeting place, superceded by CURLEYS
- PUB — WPI Audio Equipment Research Center. Employs many students after classes, esp. at night
- PUNT — what to do when one has Fluids, Controls, and Advanced Calculus in the same term
- QUAD — WPI campus outlet for Natural Sound
- RA — insignificant group of ex-cheerleaders. Rarely seen, except at CURLEYS.
- ROSE — former WPI student. Earns more typing than most engineers earn in a lifetime
- ROTC — discovered by Life Science student, is a condition which causes salt water to decompose
- SAB — new sub-sub compact car developed from a Saab as an automotive Engineering project
- SECURITY — what a graduating math major lacks
- SKULL — what one would get knocked in if he were to walk past Clark at night wearing a Tech shirt
- SPREE DAY — rare occasion when one can go into the BOOKSTORE beginning of a term and come out with change from a hundred dollar bill
- SPUD — group of undernourished vegetarians
- STUDENT AFFAIRS — office that keeps track of dormitory activities and New England nights
- SUFFICIENCY — daily requirements established by FDA. Is usually fulfilled by brownies at lunch
- SWE — social club for all students who come from Arkansas
- TECHNICON — describes a criminal committed by a scientist or engineer
- TEKE — what the floors in Boynton Hall are made out of
- TERMINAL — what one is if he has passed the Civil Engineering exam after five years
- TI — what you had better wear around your neck to a job interview
- TRACK TEAM — student organization concerned with the future of track in America
- VAN A — consortium bus that runs on Holy Cross, by way of Los Angeles
- VEHICLE — revolutionary truck developed by WPI students for government use. Runs on hot air
- WACCC — organization for Worcester Area Coalition of Computer Crushers.
- WEDGE — campus outlet for platform sales
- WIND ENSEMBLE — another name for monthly faculty meetings
- WOOSTAH — a female rooster, developed by the Life Science Department. Frank Purdue
- WPIC — society of Water Pic Engineers
- WPISFS — WPI Skin Flick Society
- Zwiep — favorite play of the WPI football squad. First developed by "The Old Man," Norm Van Brocklin, Cosmo Massucco's boyhood idol

WORCESTER STATE COLLEGE

Science & Human Condition Series

PROGRAM III
February 16, 1977

TIME: 3:30 p.m.

PLACE: Amphitheater, Science Building, Worcester State College

TITLE: IS THERE A HUMANE ECONOMIC SYSTEM?

GUEST SPEAKERS:

Dr. Arnold Bornfriend, Associate Professor of Management, Worcester State College. Professor Bornfriend's expertise is in the area of Public Administration.

Dr. Donald Shakow, Ass't. Professor of Economics, Clark University, Worcester. Dr. Shakow has coordinated the organization and funding of worker self-managed enterprises.

MODERATOR: Dr. George Kelley, Associate Professor of Economics, Worcester State College.

An informal reception will be held at 2:30 p.m. in the Science Study Hall. Refreshments will be served.

HILLEL MEETING

Wednesday
February 16, 1977 7 p.m.

Gordon Library
Seminar Room

THINGS TO BE DISCUSSED:
Friday night service and dinner

Budget for the rest of this year and next year — start thinking of more things to do.

Dancing!

REFRESHMENTS!!



Hot Sketch Computer Portrait System

Have your portrait sketched by a computer! Gifts!! Put it on a T-shirt. To benefit S.W.E. February

14 through 18 from 10 a.m. to 5 p.m. in the Wedge.

Academic planning information day

Two academic planning days will be held this year on Feb. 23 and March 1. These days essentially replace the Project Planning Days held in previous years. On these two days students will be able to get information from faculty and staff on all areas of academic effort: projects (IQPs, MQPs and PQPs), sufficiencies, and courses. In addition, faculty will be available to discuss academic programs outside WPI's departmental offerings. Counseling will be available on interdisciplinary programs such as Urban Studies, Planning and Environmental Studies, as well as pre-medical studies.

It is important that students take advantage of these planning day opportunities. Now is the time to decide what activities you wish to pursue next year. This will enable faculty to determine their project and course loads for the coming academic year.

If Feb. 23 seems a bit confusing at times, don't worry, remember the Pub will be open at 4 p.m.



St. Vincent's Hospital.



Project presentation at Washington D.C. Project Center.

What's happening:

Program planning

From 8:30 to 9:45 a.m. freshmen and new students will meet with Dean W.R. Grogan in Alden Memorial Hall to discuss the structure and philosophy of the WPI Plan and the broad range of campus opportunities available to them. Presentations will help you to get the most out of your WPI career.

Information on MQP's

Students planning to do MQP's or related PQP's next year should get information on possible projects from their individual departments. Departments will hold informational meetings on these projects between 8:30 and 9:45 a.m.

G217	ME	HL 101
AK 117	CS	HL 209
K 116	MGT	SL 105
0 223	CM	G 227
SH 105	LS	SL 326
	BM	SL 306

Careers and majors

From 10 to 11 a.m. and again from 11 to 12 p.m. departments will offer brief introductions to career possibilities in their fields and answer questions on how to plan your course offerings, disciplinary specialties and integration of course and project work in constructing programs. Appropriate for freshmen choosing a major, students considering changing majors or students interested in special programs. Prof. Demetry will be available in the IQP Center from 10 until noon to talk with students regarding interdisciplinary programs (Planning, Environmental Studies). Students should check with the respective department offices for information on where departments will hold these sessions. Pre-Med advising will take place from 10 to noon and 1:30 to 2:45 in Salisbury 327.

Sufficiencies

The purpose of the sufficiency is to give students the opportunity to study one area of the humanities in considerable depth rather than to provide a shallow exposure in many different areas. The Humanities Department has developed procedures to help students develop their sufficiencies. These procedures include introductory "concepts" courses and faculty sufficiency consultants. Humanities faculty will be available between 1:30 and 2:45 p.m. to discuss various sufficiency possibilities, answer questions and advise students in planning their Sufficiency sequences. Salisbury 105 and Salisbury 123 — English including Literature, Drama — Theatre and English as a second language. Salisbury 121 and Kinnicut Hall — History including History of Science and Technology. Also, Foreign Languages and Humanities sequences for transfer students. IQP Center — Philosophy, Religion, Ethics including Bioethics and Social Sciences, Art and Music.

Undergraduate jobs

Participants in the program alternate their academic schedule with two extended periods of paid employment related to their academic field. Students normally enter the program after the sophomore year. The total degree program is expanded to five years with up to 18 months in the employment periods.

8:30-9:45 Alden Hall - Dean Grogan: How to get the most out of WPI. Freshmen and new students-planning schedules and project opportunities.

10:00-11:00; 11:00-Noon Department presentations on career and program planning, discussions on pre-med, and interdisciplinary programs.

1:30-2:45 Sufficiency presentations

3:00

Faculty available in their offices for consultation

8:30-9:45 MQP (and related PQP) possibilities discussed in various departments.

10:00 - noon: Harrington- Information tables on IQP's, Project Centers, Exchange Programs, Off-Campus projects, Job possibilities

1:30-2:30 Harrington same as 10 to noon schedule

L U N C H

Harrington: Projects/special programs

Information on a variety of projects and special programs will be available at tables on the floor of Harrington Auditorium. Tables will be set up for each of the 12 IQP Project areas, the five special IQP programs outlined in the memo sent to all students last week, foreign exchange programs, project centers, off campus project opportunities.

IQP's

- 01 The WPI-Commonwealth Project Center
- 02 The Time Machine — Living Museums Program
- 03 Center for Science and the Law in Public Policy Analysis
- 04 Regional Evolution: Patterns of Technology and Culture (Rockefeller Program)
- 05 Railroads (Rockefeller Program)
- PROJECT AREAS IN THE IQP
- 21 Environmental and Resource Issues
- 22 Energy Alternatives Conservation and Development
- 23 Legal Systems, Law Enforcement and Criminal Justice
- 24 Urban, Regional and State Development
- 25 Transportation Policies and Alternatives
- 26 Ethics and Values in Technology
- 27 Hazards Analyses
- 28 Impact of Technology on Cultural Evolution
- 29 Unemployment, Poverty and Inflation
- 30 Problems of Developing Nations
- 31 Delivery of Social Services
- 32 Education in a Technical Society

Rogers Corp.

The Rogers Corporation is an international materials processing firm serving a variety of individual markets (from automotive to textile) with its corporate research and development facility located in Rogers, Conn. Both IQP's and MQP's in material science, mechanical and chemical engineering, computer science and management are available. The Rogers Corporation has indicated an interest in the projects and students of WPI.

This page was conceived, written and designed by Paul Cleary.

Norton Co.

Norton Company, a multinational corporation with its headquarters five minutes from the campus, offers projects in all disciplines except biology and biomedical engineering. Students in computer science and management, mechanical and electrical engineering are now working on projects at Norton.

Washington

WPI's Washington D.C. Project Center operates A and B terms each year. About 50 students, who apply as sophomores and juniors, are selected during Intercession and go to Washington the following year as juniors and seniors. Students work in two or three-man project teams for such federal agencies as the Department of Transportation, the Energy Research and Development Administration and the President's Council on Environmental Quality or such independent organizations as the National Association of Manufacturers and the Center for Science in the Public Interest. Students complete their projects in seven weeks.

Students who will be completing projects in Washington next fall have already been selected.

Information is available so you can begin thinking about the Washington program and planning for a project in the fall of 1978.

Digital

Major Qualifying Projects in electrical engineering and computer science can be done in cooperation with the Digital Equipment Corporation in Maynard, Mass. Exceptional educational opportunities exist in both hardware and software applications. Information will be available from the four site directors.

Am. optical

One of the front-rank manufacturers of lenses, eye-glasses and other optical equipment. Located in Southbridge, MA., they are old friends of WPI in the project area. Presently available are a number of MQP's in the Mechanical Engineering, Materials and Management areas. Some of them may also be suitable as IQP's and more will be generated as we move toward completion of those already defined.

St. V-UMass

The project center staffs for both St. Vincent's and the UMASS Medical School are available to discuss topics suitable as MQP's, IQP's and PQP's for majors in life science, physics, chemistry, chemical engineering, management, mechanical engineering, mathematics, computer science, materials and biomedical engineering. Students can become involved in a variety of projects ranging from basic medical and clinical sciences to hospital operation and physical plant procedures.

Natick labs

Natick Laboratories is a diverse source of studies in computer simulation, systems analysis and engineering. WPI students have made significant contributions to research efforts on such subjects as the conversion of newspaper cellulose to glucose in cooperation with the food laboratory of Natick's Microbiology Division. A multitude of opportunities for qualifying projects exists.

Exchange programs London

WPI students from the sophomore year to the first two terms of the senior year are eligible to participate in a formally established exchange program with The City University in London (TCU). The exchange will normally be for one-half year (two terms), during which time students will be preparing for their degree at the same rate as though they were on campus in Worcester. Both classroom study and project opportunities are available in London. This exchange provides students with an exceptional opportunity to broaden their academic and cultural backgrounds through study in a foreign country.

Zurich

An exchange program has been arranged between WPI and the Eidgenossische Technische Hochschule (ETH) in Zurich, Switzerland. ETH is a technical university of international reputation offering degree programs in agriculture, architecture, astronomy, botany, chemical engineering, chemistry, civil engineering, crystallography, electrical engineering, forestry, geography, geology, mathematics, mechanical engineering, meteorology, microbiology, petrography, and physics.



All my life
I have sought to pass
The rhyme, the music
My heart to express

Only three words
This poem shall address
The lyrics, the melody
They fail to caress

— — I Love You — —
— K.I.S.

The supply ship

Your voice is but an echo
Your face a fading memory
And your own distinct fragrance
That you left on our bed
Is losing its battle to live.

The touch of your skin, the joining of lips
I recall their warmth and their taste
Our joining in love, I'll remember well
I'll cherish those moments forever.

Yesterday is gone forever
It escapes and can't be captured
We can't stay sad, we can't look back
And regret its inevitable passing.

Our love lies in the future
And our future can't be denied
Our love is engraved deep in our hearts
Too deep for time to destroy.

— T.E.M.

A cloud of cold dry air blistered through his iced nostrils. It shivered down his throat and exploded into the warmth his lungs guarded. His forehead ached momentarily, the imprint of the pain lingering afterwards. Another breath was taken. And another; in-out, in-out, never stopping only hesitant.

It was rather cold outside, colder than he had anticipated. The sudden sharp tingle in his face he had angrily noticed when he first stepped outside was now absent. In its place was a solid numbness. The protective cream he had hastily smeared over his face before leaving the golden interior was laughably useless here. He gazed around himself, the vast desolation opening outward wherever his eyes focused. It never ended. Beyond the icy white crest to his left stretched a cold blue prairie becoming gray and indistinguishable with the always clouded sky. To his right lay the Southeast annex of the complex, its silver outline somehow drawn by the emptiness about it. He shivered. The temperature was dropping. In a few minutes it would be so cold he would be blinded by it. The thought was forced out of his mind. After all, he knew what it was like to be

stranded outside at night. It had happened to him. Fortunately, his location located him before they were found shelter. It had been close. He recalled was just about the same time of became lost and felt the first fear shivered again. The cold was intense.

He began walking. His stiff legs shuffled the knee boots through the snow. The sky was beginning to grow and this caused all objects to together. The sky, ground, drifts, granite outcroppings, all formed the shadow. A very bleak picture, he He stopped walking, partially because wanted to locate himself in the multi partially because he knew the usefulness of walking around. He was going tonight. That fact was the very reason he was out here. It was his turn, he faced the absurdity as had four comrades before him. It was out of his mind that he was walking outside on such a cold summer night.

The supply ship had not returned three months over a year. He thought to when the nightwalk idea was

Little flower,
the harsh
down
fall
of rain may
have caused you
to wilt,
but the same
rain
will feed your
roots
and cause you to
grow
strong
and lovely again.

— F.W.A.



JOURNEY

Andromeda. The new world. Exploring lands beyond and beneath existence. Temperment is a necessity. Dedication and love. Conciet and trust. Deepness. One who possesses can be in full control at one time. Excitement, expectation, and dissatisfaction. Concern. Too much, is the comment. Be yourself. You've got nothin' to lose. Gusto, Images on silver. Work. Ammeters, resistors. "Try and make it work." Plotting, and preparation. Discrepancies. Politics and comedy. A pat on the back. Decay end ruin. Repast. The natural wonders of life. Annoyance and discipline. Casualness leading to work already prepared. Sweltering. Horsehide and wood. "Skycap!" The rush hour. Repast. OSCULUM: VIVUS. Demands from the day and preparation. Horsehide and wood. Expectation, depression, joy. Happiness. Creativity. Discovery bound for Jupiter and Japetus. Life.

— Tom Polito

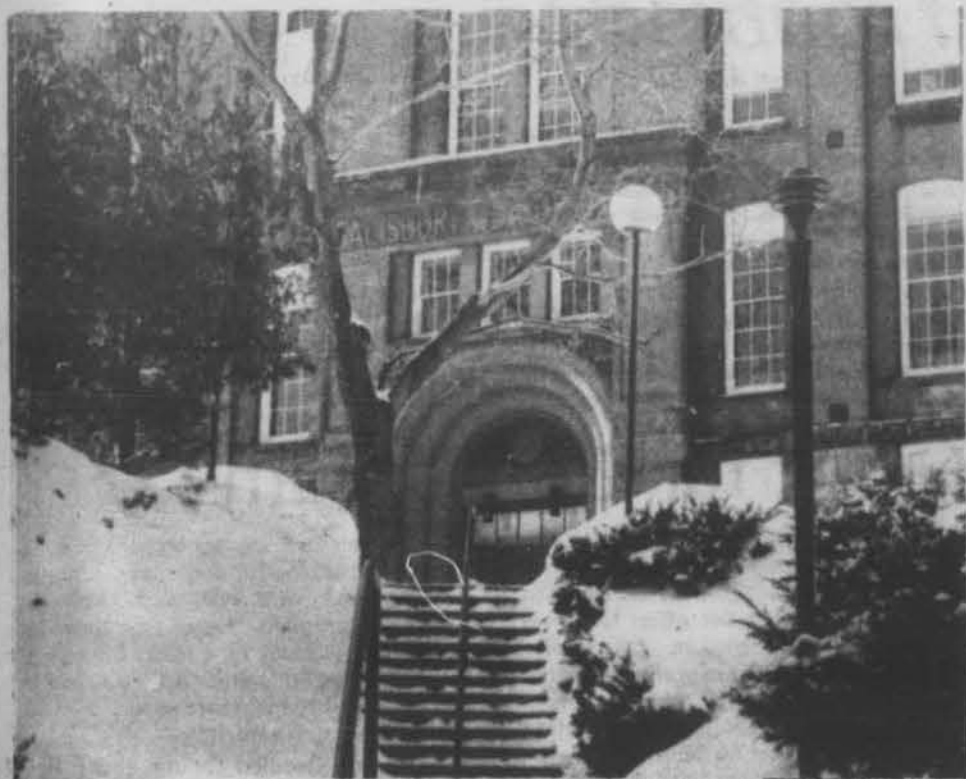


Photo by Mark Hecker

decided upon. Despite all the disagreement, nobody objected. Everyone knew that it was the only way for the population of the complex to survive. Rationing food and heat was originally suggested but it was soon determined that those measures were inadequate. The greatest possible rationing still produced a gap of three months. The food and power, respectively, would run out and they would all die. The supply ship would land two months too late.

His turn had come. He was a sacrifice. Why him? He did not have an answer.

The cold finally bit through the last innermost layer of his suit. He anticipated it, by the sudden increase in suit pressure, a final measure to insulate the man within the synthetic bag. Long ago he lost feeling in his face. Now, a peculiar warmth was developing in his fingers and across his face. His legs felt like detached clubs. He allowed himself to collapse in a heap onto the hardened drift. His head faced the

complex. Four hundred yards away he could see the tiny homing light sitting on top of the tower. It's pinprick glow sliced the gloomy night. A wind was picking up. Surprisingly it felt warm to his aching cold body. He began to feel like an ice cube melting in an oven. The piercing light of the complex began to grow until it filled his eyes like some tropical sun. God, but he was feeling warm. Maybe he should take his jacket off. The heat dulled his consciousness. He could almost — nol — He could hear birds. Impossible. He was too sleepy to think further on the subject. He drifted into a sweaty sleep. They never told me it was like this, he thought before closing his mind for the last time. The frigid darkness enveloped him. By morning he was half covered with drifted snow. The people inside the complex entered the outside, all in protective suits and retrieved the body. When would that damn supply ship return?

Alwyn Fitzgerald

BUS No. 21

*Standing alone
with nostrils sticking
and fingers tingling like nervous neon lights.
The little cloud shavings
swarm about my reddening cheeks.*

*My body stiffens
then slackens,
the tremors repeating with increasing speed.
Swift swirls of arctic air bend my neck and back
and I grudgingly carry the burden
like a mule on an expedition.*

*I squint down the road as people pass by
wearing sardonic smiles
content in their mechanical warmth.
Reading down quickly
I try to mold a ball of the fluff;
my aim is good,
but the shot explodes in the air
suddenly bereft of substance.*

*Standing in the uncivilized cold
relief arrives, two minutes late.*

Blair Hawley

Wooden Ships

*One quiet evening long ago
We walked together hand in hand
The length of a dusty Market Street
And watched a restless cat meow
While sleepy merchants packed their wares
To end a day of summer's heat.*

*At Murphy's cove we always slowed
To hear the wooden ships go creak.
Along the docks soft water laps,
Washed by the waves of yesterday.
In dying light our shadows joined
And mingled with the sleeping sea.*

*My love, those days have long since gone
When I would laugh and hold you near
To lie among long dappled grass
And count the stars as they appeared.
Though seasons fly before the night
I cherish yet those memories;
Like ancient stars to aging eyes
They yield up their unending light.*

J.F.D.

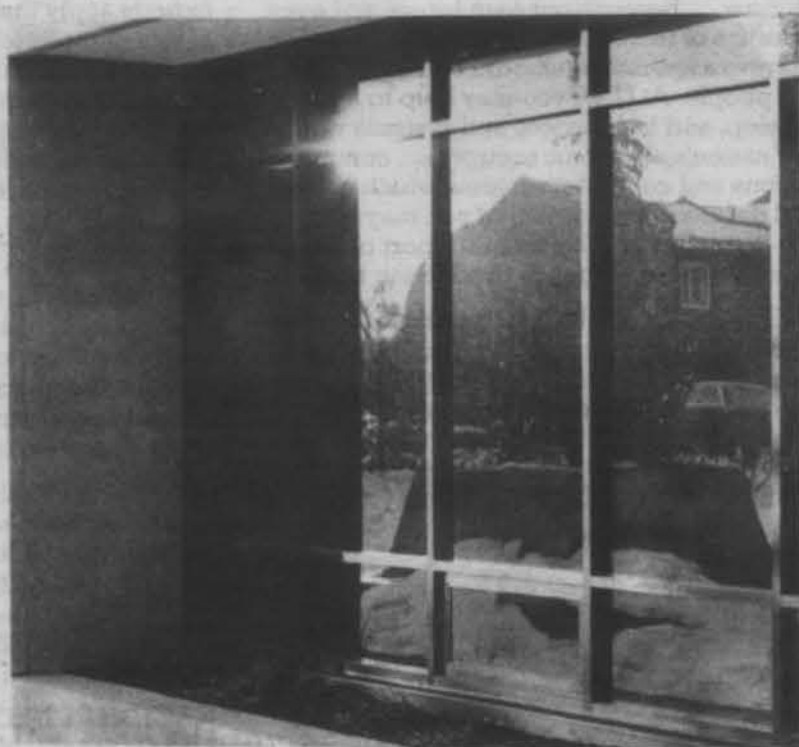


Photo by Mark Hecker

NOTE TO ALL:

Anyone with an announcement of a poetry reading, drama, and art exhibits and work shops who would like to make the WPI community aware of it can send it to me c-o Box 1120 and it will be printed in the O.T.L. Press.

FRANK ALBERTO

"Bucyrus," a play

Fenwick Theatre provides a special dimension to our already active cultural community by offering audiences plays which are seldom done or which, in some cases, have never been done. The upcoming Holy Cross production of BUCYRUS, which will be presented in Fenwick Theatre, February 15 through 20, is the work's world stage premiere.

Director Edward Herson was browsing through the Holy Cross library last spring and selected a volume of poetry by contemporary American writer John Matthias. Intrigued by the poet's work, particularly a lyric poem called BUCYRUS, Herson began to explore the idea of taking this work and doing it as a play.

The conflict of the play is between maiden aunts who feel that life's purpose is to pursue puritanical discipline and study and their sixteen-year-old wards who have

fallen in first love. The play is really a fairy tale for adults and satirizes aspects of our educational and religious tradition in a playful and imaginative manner. When Ada, the young girl finally breaks away from her somewhat perverted teachers and says "I am going to open the door" she allows the real and true meanings of life come in to touch her.

The cast includes: Robyn Geogan, Kristen Golden and Missy McNally, who will play the three aunts; John Toole as Aben; Ann Paquin as Ada; Neil Donohoe and Gigi Harrington as Bucyrus and his wife, lover, Becky. Director Herson will play the poet. Sets and lighting are designed by J. Michael Calitri.

Tickets can be obtained by calling the Fenwick Theatre Office, 793-2496. BUCYRUS will be presented each evening at 8:00 p.m.

Resume writing

The Worcester Area Chapter of the National Organization for Women, (NOW), will hold a Resume Writing Workshop at its monthly meeting on Wednesday evening, February 16th in the Al Banx Room of the Worcester Public Library at 8 p.m. The speaker for the evening will be Worcester NOW member Bill Klein. Mr Klein is Director of Affirmative Action for the Foster Grant Company of Leominster. He has presented workshops of this nature at

Simmons College. At the NOW workshop, Mr. Klein will demonstrate the techniques of effective resume preparation with case studies of actual resumes and before-and-after results of using his methods.

All interested women and men are invited to attend. A coffee hour will begin at 7:30 p.m. Chapter President Ms. June M. Coolidge of Shrewsbury will preside at the meeting. There is no admission charge.

Troubled?

by David B. Kinder

When an average person is troubled and needs someone to talk with, who does he go to? Ok, but when the President of the United States needs to talk with someone about his problems, who can he turn to? The answer is James Coburn as "The President's Analyst".

Now, what better way is there to find out what's on the mind of the President than by going through his analyst! Both enemy agents and US Security (not to mention

IPC) want to know what the President's analyst knows.

If it's comedy you're looking for, you'll find it here. If it's "James Bond" gadgetry, that's here too! There's even something for the Science Fiction buff as James Coburn uncovers the secret inner-workings of TPC!!

Remember: "The President's Analyst", Sunday, February 20th at 7 and 9:30 p.m. in Aiden. Warning: Failure to see "The President's Analyst" may result in permanent blindness.

Grant for Consortium

The National Endowment for the Humanities has announced an award of \$59,665. to the College of the Holy Cross to fund a 3-year cooperative effort involving the Worcester Consortium for Higher Education. The Holy Cross grant will enable faculty in the Worcester area to make greater use of the distinguished collection in the Worcester Art Museum.

FORMAT: For the three year duration of the grant, faculty in the Worcester area will plan fifteen exhibitions that illustrate the subject matter in their courses. Approximately twenty to twenty-five art objects either from the Museum's collection (not currently on exhibit) or from the professor's own resources (e.g., explanatory photographs, drawings, tools, etc.) will be included in each exhibit. Students using the College Gallery will be admitted to the Museum free of charge.

Each exhibit will be accompanied by a lecturer (artist, performer, speaker, crafts-person, etc.) who will work with the exhibitor's program. These "Lecturers-in-Residence" will stay for a full day at one or two colleges to participate actively in classes and informal discussions.

SPRING EXHIBITIONS: The three exhibitions scheduled for the spring may illustrate the scope of the program. Prof. Ellen Kosmer's exhibiton, *Death and the Afterlife*, is related to her Worcester State College course. The lecture fee will fund a series of films. An exhibition on *The Northern Renaissance* will serve courses in Fine Arts, History and Literature at Holy Cross and will support a "Renaissance Festival" of music, dance and poetry of the era held in the Higgins House at WPI. Peter Barnett's Clark University seminar on the History and Techniques of Drawing has researched an outstanding collection of new acquisitions at the Museum for *The Varieties of Drawing* in May.

PERSONNEL: College Gallery activities will be coordinated by Professor Virginia Raguin, of the College of the Holy Cross. At the Worcester Art Museum, Ms. Ellen Berezin, Associate Curator of Education and Mr. Timothy Riggs, Curator of Prints and Drawing, will implement the program. All persons associated with the grant are eager to extend the program's benefits to as wide and as varied an audience as possible. Faculty in the sciences, as well as those in the humanities and the visual and performing arts, are most welcome to call Professor Raguin for further information, or to send representatives to the February meeting. Your advice will help us determine how the exhibition and speakers program can achieve a maximum impact on the academic programs in the Worcester area. CONTACT: Prof. Virginia Raguin, Fine Arts - College of the Holy Cross, Worcester, MA 01610. Tel: 793-2237. Mon.-Fri - 9-3

Engineers, Computer Scientists, Mathematicians . . .

Think about your future.

At the National Security Agency we think about your future . . . because our own future and even the future of this country's security depend on having a team of intelligent and imaginative people. At NSA you may help to design, develop, and test devices and systems vital to our nation's electronic security . . . communications and computer systems which convey crucial defense information; or you may engage in technical projects in support of NSA's equally vital intelligence production mission.

ENGINEERS (BS/MS): Electronic engineers delve into unique projects which span every phase of the R & D cycle. They research, design, develop, test, and evaluate communications, recording, and information storage devices and systems whose capacities and speeds are still considered futuristic in most quarters.

COMPUTER SCIENTISTS (BS/MS): Computer experts apply their knowledge in a wide range of sub-disciplines such as systems design, systems programming, operating systems, computer applications analysis, and retrieval systems. You will work with the most advanced hardware and software in existence, and quickly become involved in major projects.

MATHEMATICIANS (MS): Math expertise is needed to define, formulate and solve complex communications-related problems. Statistical mathematics, matrix algebra and combinatorial analysis are just a few of the tools applied by NSA mathematicians. Opportunities for contributions in computer sciences and theoretical research are also offered.

The challenge is here and so are the rewards: Offers begin at the GS-7 level and include the usual government employee benefits. So perhaps it's time to stop merely thinking about your future. Schedule an interview with us through your Placement Office today. (United States citizenship is required.)

NATIONAL SECURITY AGENCY
Fort George G. Meade, Maryland 20755
Attn: M321

An equal opportunity employer m/f.



We do.

KING LEAR
March 6 at 8 p.m.
Trinity Square

\$4.00

Anyone interested in going, please contact Professor McKay, SL 03, ext. 440 as soon as possible.

Modern Physics
FILMS

1. The Physicists:
Playing Dice with
the Universe (22 min.)
2. Albert Einstein (44 min.)

MONDAY, FEB. 21, 1977
11:00 a.m. and 7:00 p.m.
Physics Lecture Hall
Olin 107

"The Physicists" surveys the contemporary frontiers (1976): theories, experiments, high-energy accelerators, quarks, black holes, . . .

"Albert Einstein," narrated by Peter Ustinov and filmed in Switzerland, Germany and the United States, explores the personal and professional sides of his creative genius and epochal achievements.

Fish fight frats

by Jim Leary

Unless you have been living in a vacuum or have been in a coma during your stay here at WPI and receiving your education intravenously, you probably have noticed that there are a number of fraternal organizations on campus cleverly referred to as "fraternities".

Now some of you, especially Freshmen, may feel a little apprehensive toward fraternities due to a number of common misconceptions that have been circulated about these fine organizations. No doubt you've heard rumors concerning a number of ridiculously crude initiation requirements enforced by many fraternities such as the swallowing of goldfish. Fortunately for everyone concerned (the fraternity brother as well as the goldfish) this practice has been generally discontinued largely due to the campaign put on in the early sixties by the national organization F.I.N. (Fish and interested others against Initiation Nonsense) whose motto became Stop Consuming Animals if you Love Ecology (S.C.A.L.E.)

F.I.N., which had its national headquarters in Woods Hole, Ma., studied the sociological and psychological effects on the families and friends of the swallowed goldfish. It seems that the consumptive practices, though assumed to be harmless enough by the fraternity brothers, were having some grave impacts on the families of the victims. In one incident the wife of a swallowed fish, upon learning of her husband's fate, decided to take her own life by swimming head on into the spear held by the little diver — at the bottom of her goldfish bowl.

Another incident which aroused national public opposition occurred in Chicago where a group of goldfish in a mid-town petshop, after reading about the death of friend in "goldfish Monthly", became so incensed that a riot ensued and the Illinois

National Guard had to be called in to aid the Chicago Police Department Riot Squad in stifling the uprising. Mayor Daley was criticized afterwards for having given a "shoot to kill" order for any fish caught in the act of pillaging the city's stores. Some fish escaped into Lake Michigan via the city's sewer system eventually making their way into Canada where freedom awaited them. The others were brought to trial and sentenced to live in Lake Erie for six months each.

A third incident which received negative national attention by arousing the wrath of the G.H.A. (Goldfish bowl Housing Authority) came when the member of the Delta Sigma Asterisk Fraternity at the Emmaus Bible School in Oak Park, Illinois, after swallowing a goldfish and finding that the goldfish survived and was living in his stomach, began charging him rent with an option to buy.

The incident which many thought swung the issue came on March 15, 1962 when an oversized goldfish in Orlando, Florida swallowed a member of the Alpha Sigma Swastika Fraternity in order to impress his friends.

Most fraternities across the nation conceded willingly to the plea to stop consuming goldfish. It seems that they discovered that economically they were defeating their own purpose — the more goldfish they swallowed, the higher the price of a prime swallowable goldfish became, since they in fact were creating a shortage (important to know here is that most of the swallowable-type goldfish had been female, thus the reproducing ability of goldfish as a whole had been weakened.)

Luckily today most fraternity brothers and goldfish live separate but equal lives. One fraternity on the campus of Drake University in Des Moines, Iowa went as far as to initiate a goldfish as a brother and making him captain of their swim team. . .

Evolution?

by Charles W. Johnson

It took 200,000,000 years to organize this meeting. Out of near eternity, one common minute to stand upon a common ground — it, the snapping turtle: carapaced, and lumping toward a water-hole, perhaps for egg-laying.

me, fledged into automobile, flying too fast for reaction. Just time to spot the turtle between the wheels. I stop, turn around, come back. It stays midroad.

Another car blasts over. What strange guards these are that patrol this open ganlet. Did the turtle sense some great predators approaching? No, how could a beast make sense of noises made out of metal.

I step out with an iron bar in hand to get it away from danger. But now my steps

have made a difference. It recognizes. It claws to scratch its way around and face me. Its eyes glaze cataract white, but it can see. Jaws begin to open.

I might as well be a dinosaur stalking out from trees of ferns and horsetails. The jaws clank hard over by good intentions, but I win the encounter and flip it in the grass.

Dim-witted anachronisms...they cannot run our roads. But no need to patronize. They move slowly, but perhaps with more certainty. Compared to their ancestry, we have just been born. They have seniority.

We have built some ways to prop a throne upon the mound of evolution. But let's wait and see. Let's wait another 200,000,000 years and see whose road the turtle crosses.

Classifieds:

FOR SALE: YAMAHA — CR-800 receiver and NS-870 speakers. Mint condition, 6 months old, cost over \$1050 new, asking \$900. Inquire at Box 1580.

SMOKERS NEEDED: Males, 18 to 24 years old, who smoke at least 20 cigarettes a day needed as participants in a Growth and Development Study. \$10 for 1/2 hour. No

drugs or blood samples involved. Please call the Biology Department of Worcester State Hospital, 757-6934 for appointment or more information. No calls taken from 12 to 1:30 p.m. or after 4:30 p.m.

FOR SALE: ONE Smith and Wesson Mod. 19-3357 mag revolver. Absolute mint cond. With holster per cent 195. Buyers should be 21 years or older and Conn. resident. A sale through Mass. dealer considered. Contact Box 2058.

COMPETENCY EXAM RESULTS for January, 1977

Department	AD	AC	NR	Total
Chemical Engineering	6	18	9	33
Chemistry	4	5	2	11
Civil Engineering	6	43	6	55
Computer Science	6	11	5	22
Electrical Engineering	16	28	10	54
Humanities	0	0	1	1
Interdisciplinary	0	4	0	4
Life Sciences	3	3	0	6
Mathematics	1	1	3	5
Management	2	4	2	8
Mechanical Engineering	9	40	17	66
Physics	3	4	0	7
Total	56	161	55	272
	20	21		
	percent percent			

PIZZA — Wednesday nite 7-10 p.m.

Plain 50¢ with one or two toppings 75¢.

in the Snack Bar.

New project center opens

by Don Chamberlayne

On February 23, WPI's "Planning Information Day," one of the tables set up in Harrington Auditorium will bear the title "Commonwealth Project Center." Through this newly-established project center, which is scheduled to begin functioning in the Fall (A-77), a limited number of students will be able to work with the state's Executive Office of Communities and Development on IQP's or MQP's.

This cabinet-level Office, of which the major agency is the Department of Community Affairs (DCA), is concerned with the state's role in a broad range of issues pertaining to housing and community development. Among the topics which students might address are the dynamics of neighborhood decline and programs for neighborhood stabilization or rehabilitation; the impacts of zoning and subdivision regulations on development and on conservation of land resources; maintenance of state-assisted housing projects; energy conservation in state buildings or state-assisted housing; management information systems for the Department or for local housing or redevelopment authorities; housing for the elderly or handicapped persons; and many others.

While many of the project opportunities will be especially appropriate for students majoring in planning, environmental studies, management, or civil engineering, some will be relevant to students in other fields as well. For example, the Department is particularly concerned about energy conservation programs for state buildings and would welcome projects pertaining to the techniques and economics of solar energy or other forms of energy conservation.

Unlike the Washington Project Center, the Commonwealth Project Center will not involve residence in Boston nor will it require more than occasional travel to the city. (Travel expenses for such occasional visits will be paid.) Projects may be done in one term with full-time commitment or spread over three terms, depending on the nature of the project and on students' needs and preferences.

Students considering project work for the next academic year and who have any interest in the opportunities of this program or would like to find out more about it should come to the Commonwealth Project Center table in Harrington on February 23, between the hours of 10 a.m. and noon, or 1:30 and 2:45 p.m.

Police blotter

To: Dean Donald P. Reutlinger
From: Chief Alfred T. Whitney
Subject: Incidents During Week Ending February 6, 1977

On Monday, January 31, 1977 at 8:30 p.m. student of SA 204 reported to Campus Police that the lock on his door was broken and had to be repaired — later he noticed that the following items had been taken from his room: 1 Sony TV, 15 cassettes and 2 pair of head phones.

On Tuesday, February 1, 1977 at 12:10 p.m., student of Riley 101 reported missing from his room over school vacation, 1 pair of head phones valued at \$10.00 and a Superscope Tape Deck valued at \$30.00.

On Wednesday, February 2, 1977 at 8:45 a.m., custodian called re someone had poured soap and ammonia into a piano located on the third floor of Alden.

Alfred T. Whitney
CHIEF, Campus Police

1977 Pre-Registration and Registration Schedule for Projects

Two Student Academic Planning Days will be held this year so that students may pre-register for IQP's, MPQ's and PQP's. A complete schedule of events for the first of these planning days can be found elsewhere in this issue of NEWSPEAK. The schedule for pre-registration and registration for projects for next year is below.

Feb. 23 — Faculty offer information on specific project areas. Students who have not selected a project advisor narrow their interests.

March 1 — All students must complete project pre-registration. Final project registration will occur in several stages:

March 1-April 20 — Faculty refine project definitions.

March 17 — Pre-registered students receive project registration forms.

April 1 — Students who did not pre-register may obtain project registration forms.

March 17 — April 20 — Final project registration specifying title, registration number, etc.

Good projects require good planning. Decide now what you want to do for project work next year.

The Chess Club will hold its first meeting Wednesday night in Goddard 012. Starting at 7 p.m. All are welcome.

Campus printed circuit facility available for student use in Olin Hall room 018. Term C Hours: Mondays and Thursdays 12:00-3:00 and Fridays from 11:00-3:00. For additional information contact Dan Hoch at 757-1767.

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The language barrier

by Tony Camas

I really have to pity foreign students. They go off and learn English — a messy language with more exceptions than rules — only to be shipped off to Worcester, where people speak Worcesterese, an obscure language which is about as close to English as Worcester is to Hong Kong.

I came from a medium-sized town in suburban Long Island — a town called East Northport, New York, which is located (as the name clearly implies) directly South of Northport, New York. In the nineteen years of my life, I have met a number of people, with a number of strange accents and speaking habits, and, until I got here, I was certain that I had heard it all.

When I arrived in this humble city back in September of 1975, I fully expected to hear a good deal of what the natives back home called "Boston Accents" ("Paak the Caaa in the Garaage", and all that). I was indeed quite surprised to discover that this was not the case, and I decided that maybe — just maybe — Worcester was not as mixed up as I had expected it to be.

Boy, was I in for a surprise. To start with, there are a number of strange ways of pronouncing words around here. This town, for example, isn't called Worcester, it's called "Wooohstuh", and don't let anyone tell you otherwise. And never before have I seen so many people who could not pronounce the syllable "er."

You could take a Worcester newspaper, replace all "er's" with "uh's", and nobody would be the wiser.

But pronunciation isn't the big problem. After all, who is to say who pronounces words properly, people in Worcester, people in Brooklyn, or people in Georgia? You can't make much of a case on that.

The most unusual aspect of the language up here isn't the pronunciation at all — it's the words themselves. Take the name of this state, for example. This is the state of Massachusetts, right? Wrong. It's not a state, it's a "commonwealth," and its name is *not* Massachusetts, it's "Mass" — just "Mass."

There is also no such thing as an Avenue in Worcester. There are Streets, Roads, and "Aves", but no Avenues. Don't ever ask anyone around here how to get to Massachusetts Avenue. No such thing exists. It's called "Mass Ave."

This pre-occupation with abbreviations around here has puzzled me for some time. As near as I can figure it, it is a great strain on the minds of most Worcesterites to pronounce words of more than three syllables. Whether this unusual characteristic of the residents of this city is genetic or the result of something in the water, I don't know, but it must be the reason why people around here are so fond of abbreviations.

The language barrier doesn't stop there, though. There are a whole bunch of other obscure words and phrases which are used up here in place of normal words and phrases.

Someone asked me once to drive them to the package store.

"Where?" I inquired, wondering what kind of funny store sold packages, and speculating on the outrageous prices they probably charged for them.

"The package store," my friend replied.

"To buy what?"

"A six-pack or two."

I gave up trying to understand him, and asked him to direct me. We approached the store.

"Right here, on the right," he said, pointing to a sign which clearly read "LIQUORS," and made no mention of packages.

"Where," I inquired, turning into the parking lot, "next to the liquor store?"

"No, this is it, here."

"That's a liquor store."

"No, it's a package store."

"Why do you call it a 'package store'?"

"Don't ask stupid questions."

Another time, as I sat at a booth at Notis Pizza (my first trip to the famed place), I remarked to a friend that I didn't think I was hungry enough to eat a whole pizza.

"Why don't you have half a grinder or something?" he suggested.

"Half a who?"

"A grinder."

"What in God's name is a 'grinder'?" I inquired, picturing some terrible concoction which was force-fed to fraternity pledges as part of their initiation rites.

"Are you kidding?"

"No, are you?"

"That's a grinder," my friend said, pointing to a person in the next booth.

"You mean the thing he's eating?"

"Yes!"

"That's a 'hero'!"

"Huh?"

"That thing's called a 'hero' — a hero sandwich!"

"Why do you call it that?"

"Why do you call it a 'grinder'?"

"Don't ask stupid questions."

It seems whenever I try and get to the bottom of these odd terms, I am accused of "asking stupid questions." Not only that, but I keep running into these terms, even though I have been here now for a year and a half. Just the other day, in fact, I was introduced to an object known as a "bubbler."

"Is there somewhere around here I could get a drink of water?" I asked a security guard in a department store.

"Yeah," he replied, "bubbler right over there." He pointed across the room.

"I beg your pardon?"

"There's a bubbler right over there."

"A what? Where?"

He began to get impatient. "LOOK!" he demanded, pointing firmly at a set of drinking fountains on the other side of the room.

"Oh, I see them now. But what did you call them?"

"WHAT?"

"What did you call those things?"

"WHAT, THE BUBBLERS??"

"Bubblers?"

"LOOK! DO YOU HAVE A PROBLEM OR WHAT?"

"No! Why do you call those things 'bubblers'? Where are the bubblers?"

"All right, kid." He grabbed my arm and escorted me roughly to the door. "Get the hell out of here and don't show your ugly face around here again, understand?"

"What? What did I do?"

He pushed me out the door, making quite a scene. I guess maybe I shouldn't ask stupid questions.

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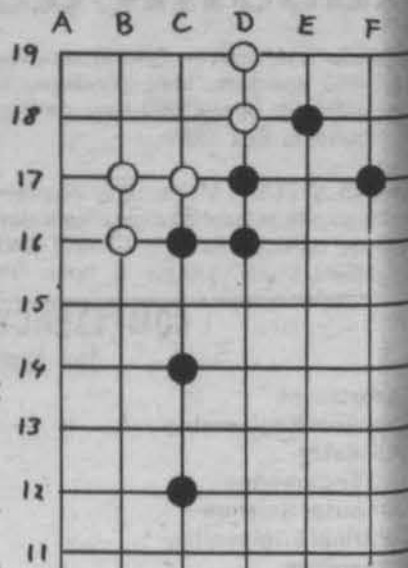
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Solution to last week's Crossword.

GO - GO - GO Problem No. 7



Black's Move How can Black capture the White group?

Solution to Problem No. 6: S6, T5. Send solutions to Eggmann (EE)

GO Meeting: Friday 11:30 in Physics Library.

SPORTS

Hoopsters win 2 of 3

by "Bake"

Boy did it feel good! A sustained 40 minute effort finally resulted in a win as WPI streaked to a 88-78 victory over Trinity at Harrington Auditorium last Wed. night. The kind of effort which has often been present this season, but the strong kick at the finish which hasn't kept some fine individual performances from being wasted. The guard tandem of Kevin Doherty and Rick Wheeler were simply immense. Kevin hit 9 of 12 shots from the floor, added 2 free throws and 7 assists while showing why his teammates call him "chief". Mr. Wheeler accolades include 11 for 21 field goals, 9 from the charity strip, 5 rebounds, 7 assists as well as a few in-your-face jumpers over Trinity's leading scorer Arthur Blake whom Rick also did a fine defensive job on. As well as these two played they were hardly a two man show. Mark Nestor had his best point production through his hardnosed work inside, picking up 18 points. In one stretch Mark hit 8 straight free throws before missing his final one in the waning moments of the game. His bullwork also netted him 11 rebounds, which is coming to be expected of Mark. Lanky John Brodersen woke up in time to turn in a fine game. Seemingly not quite with it in the first half in which the Engineers were able to hold only a 37-36 advantage, John demonstrated his shooting ability in the second half. He was perfect 4 for 4 from the floor, 5 or 6 freethrows were added and he swatted away 4 Trinity shots. Included in that blistering stretch was a 3 point play with less than 10 minutes left in the game. That came with the score knotted at 60 all and was responsible for breaking the backs of the opposition. Jim Kelleher was the only other WPI player to score as he clicked for 6. That apparently rounds out the games individual performances. except to anyone who witnessed the game. In it they saw Bob Stack playing with his usual voracious intensity which even an errant pass into his face couldn't quell. Hardly was Bob a non-entity in this game.

A lot of good came out of this game. The young Engineer squad showed its ability to sustain a fine performance for the duration of play. The prophetic free throw shooting

proved itself. The team shot an excellent 79 per cent from the line. Even more amazing was the 56 per cent the shot from the floor including a blazing 64 per cent in the second half.

That wasn't the only good game turned in by WPI this past week. Saturday afternoon a tough Middlebury squad came to Harrington. They were greeted by an Engineer squad who were on a tear. They were also greeted by a young magician named Kevin Dougherty. Kevin, dressed in the Engineers uniform, showed the visitors no respect as he picked them clean with a WPI record 18 assists. Anyone who knows basketball realizes that this is slightly phenominal. The lucky recipients of Kevin's tricks were basically Mark Nestor (7 for 8 from the floor, 17 pts.) and John Brodersen (8 for 12 from the floor, 16 pts.) Kevin added 10 pts. while his back court mate Rick Wheeler had an off night with his 12 pt. performance. Another sophomore standout was Jim Kelleher. Playing a hardnosed defensive effort against his brother Kevin, a forward on the Middlebury squad, Jim contributed 12 points to the winning WPI effort and snared a game high 8 rebounds.

The final score of 82-78 indicates just what a battle it was. Kevin Doherty's two free throws with 2 seconds left sealed the well earned triumph. Once again the team shot well from the free throw line, hitting 14 of 20 for a 70 per cent mark.

The one black mark this week came Friday night with a trip to New London, Conn. and the Coast Guard Academy. WPI dropped a 83-70 decision there, though a few individual efforts stood out. Mark Nestor hit personal highs of 21 pts. and 16 big rebounds. Rick Wheeler had 25 and is closing in on the 2nd leading scorer in WPI's history. And George Fredette, who comes off the bench to help the big men, was the second leading rebounder with a bushelfull. George, an unsung junior, helps with his inside work in each game but seldom gets the big headlines.

Certainly an excellent week for WPI's basketball fortunes. Should this kind of effort continue through the rest of the season, nothing but smiles will be coming from coach Ken Kaufman.



Mark Nestor hooks one in as George Fredette (34) and Rick Wheeler (44) look on.

Photo by Ann-Marie Robinson

Brodersen helping out

by Stephen Raczynski

"He has been this season's most pleasant surprise" recently said Ken Kaufman, Head Basketball Coach at Worcester Polytechnic Institute.

Coach Kaufman was referring to John Brodersen, his blond-haired 6'8" freshman center from Pearl River, N.H.

One year ago, John was averaging 14 points and nine rebounds per game for Pearl River High School, where as a senior he was an all-county honorable mention performer. At WPI in 1976-77, John's figures have not appreciably changed.

Through 17 games, Brodersen is leading the Engineers in rebounding with nine caroms, and is the team's second leading scorer with 10.9 points per game. He is also leading WPI in field goal percentage, shooting at a 63 per cent clip to rank him among the top ten Division III shooters in the NCAA nationally. "Bro" has also been credited with 26 blocked shots to top his teammates in that category.

John's high school coach, Joe Ryan, indicated that "Bro" had a great deal of potential" said Coach Kaufman, "and I have to agree. John has come a long way in just one year."

Brodersen is part of a youth movement at WPI, where Coach Kaufman starts two freshmen and two sophomores, along with All-ECAC senior guard Rick Wheeler, who is presently averaging 25 points per outing.

Combining that with the fact that WPI plays one of the tougher Division III schedules in New England, it should not be surprising that the Engineers possess a mere 4-13 mark this season.

But the Engineers have come close to upsetting some noteworthy opponents. WPI lost to Springfield in overtime and to Bentley by eight, both New England Division II powers. On February 3, WPI also extended Brandeis University, rated fifth nationally in a recent issue of *Basketball Weekly*, to overtime at Brandeis before bowing 96-89. In all three games, John Brodersen proved to be a major factor for such good team performances.

As an individual, perhaps "Bro's" best outing came during the 93-76 triumph at Lowell. John pulled down 12 rebounds and scored 17 points, going 8-9 from the floor. Brodersen followed that performance by clearing 13 rebounds and scoring 17 more versus Suffolk, yet another Division III power in New England, only to see his team lose 94-82.

Brodersen, a member of the Lambda Chi Alpha fraternity, is a mechanical engineering major at WPI.

"If John Brodersen gains about 15 or 20 pounds over the summer, he'll become a truly outstanding college division player" predicted Coach Kaufman of his 180 pound freshman.



John Brodersen, surrounded by defenders, puts one in for two.

Photo by Rory O'Connor

IM b-ball playoffs soon

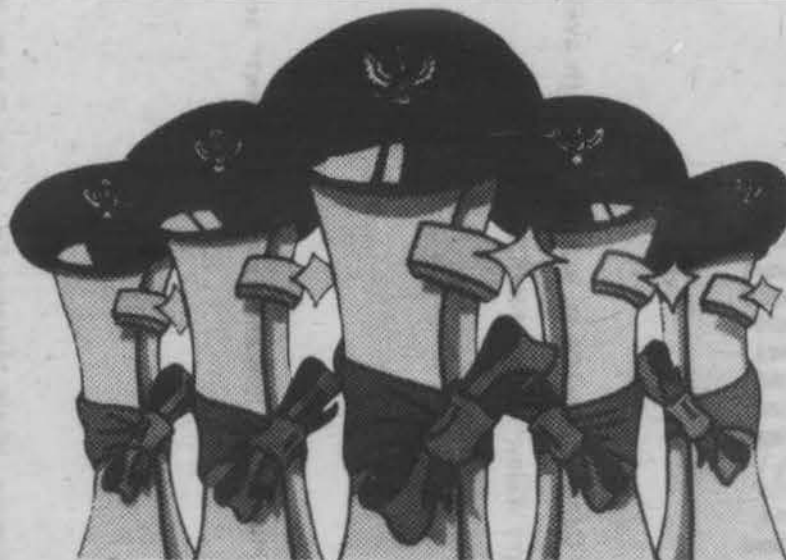
by "Bake"

Things have started to heat up on the intramural circuit with the second half of the season steaming along. Many strong teams have yet to be tested but there were some barn-burners. Unfortunately too, there were quite a few forfeited games. These do nothing for anybody and only show the poor sportsmanship among those who take the pleasure of playing away from the teams that do show up. Enough said about that though it is hoped we can go through the rest of the season without any more 1-0 scores in the book.

The biggest game in the first two weeks of play had to be the ROTC-SP(1) match-up. ROTC's two man show of Hunt and Farrenieau was just not enough to catch the balanced Sig Pi attack as SP(1) won 39-37. A dorm battle saw Daniels 2nd take

Morgan 4th 30-28. And STD(A) just edged a tough DST team 34-33. The final game of last week saw SPE(B) defeat the previously unbeaten AAA 35-29. Another SPE team (C) lost a close game to STD(A) 26-21. There were some of the typical wipe-outs as well - OTHG took SPE(C) 54-4 and HOB0 36-14. The Celts, led by the Graham brothers, Alan and Gary, took PKT(C) 33-19, and PSK(D) 39-20.

A couple of big games are coming up this week. SPE(A) - ATO(A) looks to be tough. Right after that LCA(A) take on ROTC, then AAA goes against PKT(A). Look for Gam(A) - STD(A), SP(1) - WOOF, FIJ(C) - LCA(C), all to be close games. It's getting close to playoff time so the scrapping and fighting for these spots should gain intensity.



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What's Happening?

Tuesday, February 15

"Hot Sketch" Computer Display Student Government Office, Daniels Hall, 10 a.m. to 5 p.m. Portraits available.
(thru Feb. 18)

Cinemathech Film Series, Early Academy Awards — "The Merry Widow" Kinnicut Hall, 7:30 p.m.

GOHPEC presents "Ray Boston" in the Pub, 8 p.m. Free.

Play: "Bucyrus" by John Mathias, Fenwick Theatre, 8 p.m. (thru Feb. 20)

8 p.m. (thru 2/20)

Wednesday, February 16

Worcester State College Science & Human Condition Series, "Is there a Humane Economic System?" Science Amphitheatre, 3:30 p.m.

Basketball vs. Williams, away, 8 p.m.

Women's Basketball vs. Mt. Ida, home, 7 p.m.

Indoor Track vs. Holy Cross, Worc. State, away, 7 p.m.

Junior Varsity Basketball vs. Williams, away, 6 p.m.

Thursday, February 17

"Your First Job" Open Panel Discussion with Arthur Pingalorere, Heald Machine Co., 7:30-9:30 p.m. in the Library Seminar Room.

Swimming vs. Brandeis, home, 7 p.m.

Acting Workshop, Alden Hall 8:30-10:30 p.m.

Hockey vs. Stonehill, home 7:45 p.m.

Friday, February 18

Wrestling vs. Western New England, home, 7:30 p.m.

Saturday, February 19

Coffee House Performance in the Wedge, 9 p.m., "Scrub Board Slim"

Basketball vs. Tufts, home, 8 p.m.

Women's Basketball vs. Clark, home, 6 p.m.

Swimming vs. Tufts, away, 1 p.m.

Fencing vs. Northeastern, away.

Ski Team Qualifier at Mt. Whitier, NH. (Feb. 19-20)

Sunday, February 20

Wrestling: N.E. JV Tournament at Springfield

Lens & Light Movie — "The President's Analyst," 7:00 and 9:30 Guitarist Angel Romero, Atwood Hall, Clark 8:15 p.m.

Monday, February 21

WPIC-TV "Son of Movie Orgy." Showings at 10:00, 1:00, 3:30, 7:00 (through the 25th)

Hockey vs. RIC, home, 6:30 p.m.

Tuesday, February 22

Red Cross Blood Drive, Harrington Lobby, 10:00-4:00 (through the 24th)

Women's Basketball vs. Becker, away, 7:00 p.m.



Photo by Rory O'Connor

Newspeak

Volume 5, Number 3

Tuesday, February 15, 1977