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# TECH NEWS

SCHOOL OF TECHNOLOGY

CITY COLLEGE OF NEW YORK

VOL. VII No. 6

THURSDAY, DECEMBER 19, 1957

By Student Fees

## NOMINATIONS TODAY FOR TIIC OFFICERS

### ELECTION OF MAJOR IMPORTANCE

On January 2 TIIC will hold elections for the offices of president, vice-president, treasurer, recording secretary, corresponding secretary, and chairmanships of its various permanent committees. The importance of these elections to the members of the School of Technology cannot be over-emphasized. The Tech Interfraternity Intersociety Council, is, as its name implies, the combined voice of the twenty-odd engineering organizations on campus, and as such co-ordinates activities in the School of Technology, and serves as a direct link between the engineering student, the faculty and especially the engineering world.

The work of TIIC has many facets, such as helping the engineering student to better understand his profession, and trying to aid his professional development; this is done in close cooperation with both the Engineering Alumni Association and the Placement Office, through such things as job orientation assemblies for seniors, both technical and non-technical programs, and starting next term an orientation day for juniors, to be held on the second Saturday of the Spring term. In addition to these, TIIC is also active in any program on campus which affects engineering students.

In closing we wish to say that a person who is to be a candidate for high office in TIIC should be a well known member of the school of Technology, who is willing to work hard for its members and be conscious of their wishes and thought, and who has some administrative experience in student government.

HERB HILLER, ME '60

The first L. Jr. Orientation Program to be sponsored by TIIC will be held February 15, 1958. A briefing of student counselors will be held January 2, 1958. More information will be posted. Counselors are needed.

## THE PRESENT SITUATION

### THE OPINIONS OF DEAN ALLEN

Because of the upsetting shifts in the economic and scientific climates in the past few months, many Tech-men are bewildered as to the actual employment and intellectual situation. Dean William Allen of the Tech School was asked to discuss his outlook on present trends as a guide to personal planning. He also discussed recent developments in the school.

The plans for the new Tech building have been given a final scrutiny by the engineering departments and, having been approved, are in the hands of the architects. Work being done on the plans



DEAN WILLIAM ALLEN

now is of a contractual nature; it is being determined which items are to be specified as part of the Building — "built-in" — and which equipment is to be defined as being installed in a completed Building.

As you may have noted in the papers several weeks ago, the City Planning Commission has included the project in its recommended program of construction for next year. The Commission's approval was given after study of the proposal as set forth in the budget of the Board of Higher Education. The approval of the Board of Estimate, the Comptroller and Mayor Wagner are still necessary to insure funds for the project. If their okay

(continued on page 2)

## TAU BETA PI HEARS TALK BY NATHANSON

There are two real dangers present in America today. These are the result of two different kinds of revivals: the panic stricken revival of scientific and technological interests and the religious revival that is currently growing throughout the country. So said Mr. Jerome Nathanson of the Ethical Cultural Society, in a talk sponsored by Tau Beta Pi. The theme of his discussion was "Science and Religion in Contemporary Society."

Speaking first on religion, Mr. Nathanson explained that there is a very great pressure, both organized and social, driving people toward religion. As an example, he cited a man in a small suburban community who, while being an agnostic, was nevertheless forced to attend a church for fear of community ostracism. It is this same pressure, not too noticeable in New York, that creates the need for people to identify themselves with a religious group. As to the danger of this religious revival, the speaker said that religion represents "... a retreat from, and an undercutting of, the use of intelligence for the solution of human problems."

The field of science and technology, he went on to say, has reached a point where graduating students are getting higher salaries to begin with, than their instructors are getting. The danger here is the tendency of students toward "... a devaluation of anything that does not pay off." On campuses throughout the country, he noted students are refusing to identify themselves with political and social causes. The reason is "... that they will not mortgage their future in anything that will not pay off—or might hinder their chances for this pay off." The net result of this, he felt, is a blindness towards human values.

Following the lecture was a vigorous question and answer period. The consensus of those present, whether they agreed with the speaker or not, was that they had received a most stimulating and thought provoking talk and that they were indeed most fortunate.

STAN SMALL

## TECH NEWS

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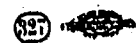
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AN ACTIVE STUDENT  
POLICY ON EMPLOYMENT

The sudden lack of interest of campus interviewers in this term's graduates has caused all of us to worry about our employment potential. The first job an engineer holds has a definite effect on his career, and the best jobs are usually obtained through campus interviews. The company with an interview program usually has a training school or an indoctrination lecture schedule. These organizations usually have a good reputation and a highly rewarding salary scale. To start a career with a job for such firms is fortunate. Besides the training, the reputation of the company enhances the quality of one's experiences. The engineering

training programs and selective policies of G. E. or the Bell Labs is so respected that the reputation of any engineer ever hired by these firms is enhanced. The more top notch companies that come to campus, the more probable are our chances of getting a first grade job and a resulting good career start.

As was illustrated in VECTOR's summer employment coverage, summer jobs are obtained basically through personal push. And no one can deny the advantages of this pre-graduation experiences. Unfortunately few companies come to campus to hire summer help.

This term's scarcity of positions merely exposes the competitive nature of the search for employment. We should now realize that a coordinated effort to attract companies to the campus and to aid the Placement Office would benefit all students.

The Placement Office is understaffed. Even so each job seeker is given personal attention. The Program this year was very thorough and only the present economic temper caused company lack of interest. It would not hurt if student organizations would make an open attempt to attract interviewers to City College. Letters from ASME, AICHE, IRE, etc., to mention a few, inviting companies to visit would reinforce the invitations sent out by the Placement Office.

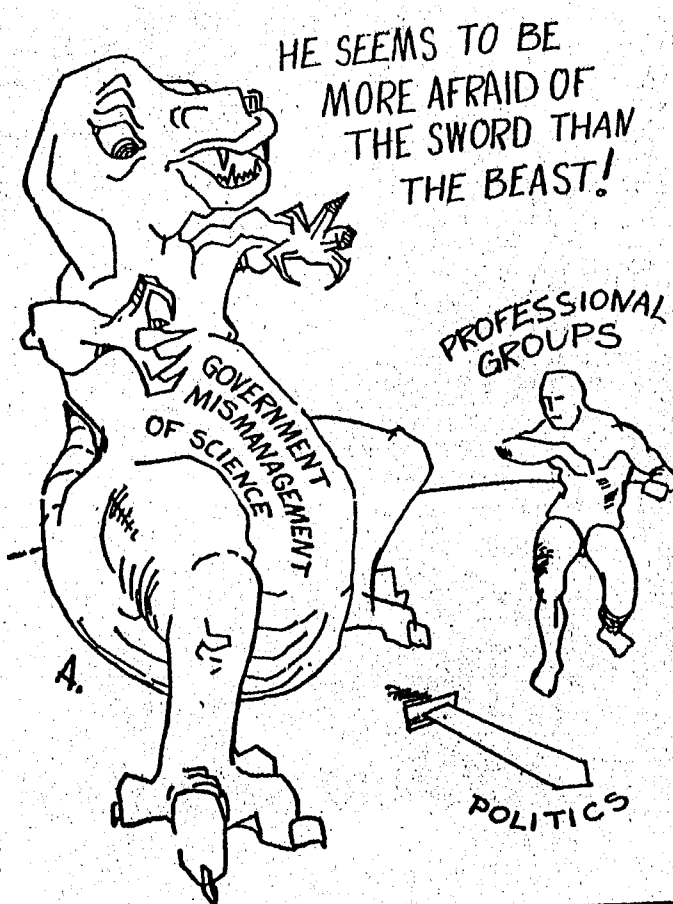
Anyone hoping to work next summer had better start looking for work during the winter vacation. The Placement Office is accepting application for summer work right now and immediate filing will help the office in planning summer interviews on campus. These applications will also aid the office in personal guidance.

The Placement Office would also appreciate substantial aid in the form of student help. This could be a project of the honor societies. Such student help would aid in publicizing the interviews and placement programs. Since the Placement Office is located on south campus and since the newspapers are inefficient in publicizing last minute developments, immediate notices could be posted on the bulletin boards of Tech Crossroads.

The organizations should elect a member to personally inform the societies of the latest placement developments. It would be congenial and cooperative of student leaders to visit the Placement Office to discuss how their organizations could be of service.

We hope that the headline IRON CURTAIN ENGINEER which appeared in the last issue did not give anyone the wrong impression. The title was misleading and did not suit the content of the article.

—THE STAFF



## PRESENT SITUATION . . .

(continued from page 1)

is gotten then funds will be available for construction anytime after the first of the year since the city capital budget runs the calendar year. \$6.8 million are being asked for construction and about a million dollars for outfitting and new equipment.

The College already has the funds necessary for demolition of Bowker Library and Drill Hall. It is hoped that demolition can begin with the coming term and that construction can be started in about mid-Spring. Delay must be attributed to the rearrangement of facilities now in progress whose result is to be the emptying of the Library and Drill Hall.

The high school student or college freshman who bases his choice of the type of education he will have to make use of for the rest of his life on minor pendulations in the economy is making a serious mistake. Conditions at the time of graduation are out of phase with those prevailing at the time of college entry by some five or more years. Study of the economic activity of the U. S. over the past five or ten years shows a curve which can be likened to a rising exponential. Certainly the curve shows minor drops — and sudden rises — but these are what form the curve; it might be imagined as a shadow band which included these fluctuations but whose mean ordinates present a long-term pattern. Any high school student with an aptitude and interest in engineering whose decision not to enter the field is made in this way is being less than realistic.

The Dean also pointed out that in times of economic recession that the values of a broad, basic education

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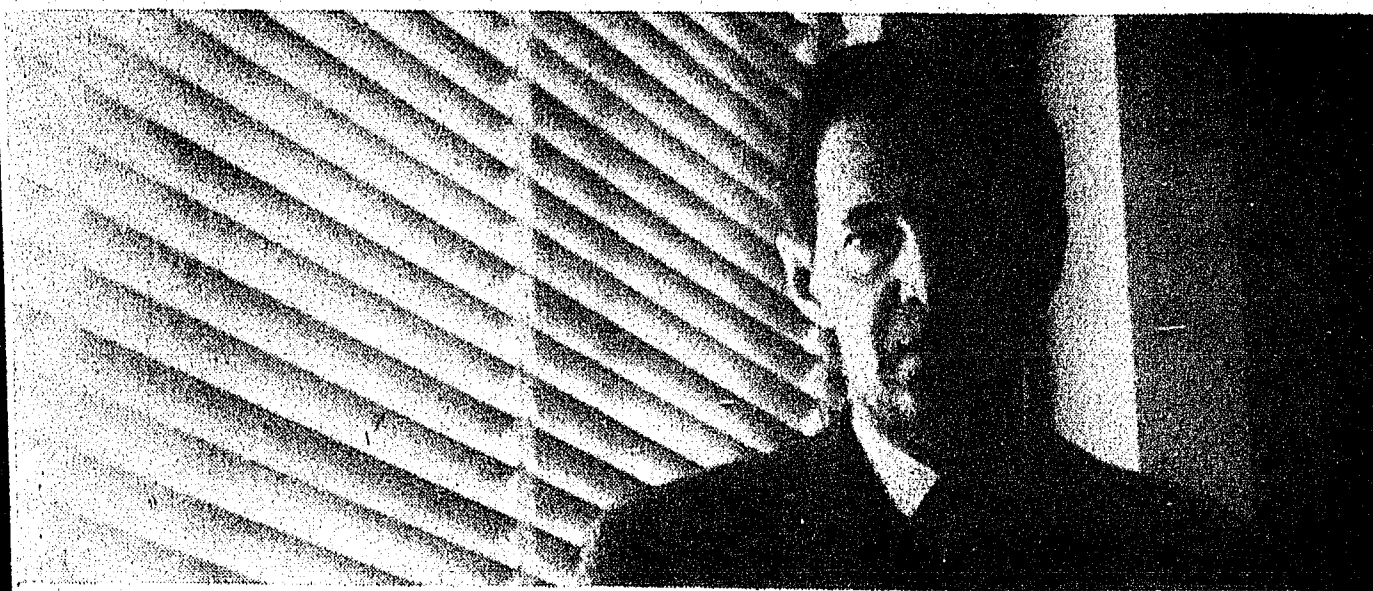
"Everybody is not just relegating everyone, and learning. To be a thinker. This is storekeepers, all These are the Nelson, Profess "A European Professor Nelson he hear one in sible." I think parred by conv Europe is too co people are h knowledge. Th to make origina of doing things "Creativity c ng people con experience, and solve their own solve their own y no one else uently the stu was allowed such an uncerta he evidence, onclus.on." One of the to teach us to our own con at it, "A go the thresh looking in from ind, it would all of new ic any such roo neer today, t bothered by arning of fun ave time or c imaginative si ssor Nelson, er going to t



## IN SEARCH OF A CREATIVE ATTITUDE:

**WHAT IS CREATIVITY?****AN INTERVIEW OF PROF. ARTHUR NELSON**

INTERVIEW BY RUTH LIEBMAN



Eiffel fought the entire French nation before he built his tower. And he set new standards for the world in the design of so high a structure. The Eiffel Tower is just as high as the Chrysler Building here in New York, but it was erected many years before.

"An artist should have the same dignity as the engineer or doctor. He should be paid for his work and be socially useful." Professor Nelson regards contests and prizes as horribly undignified and unprofessional. They are a means of getting cheap advertising, and usually are the result of brilliant, young, new executives who are not willing to pay for professional talent. "I remember as a student, a certain company had a nation-wide contest for a package design. Ordinarily, a professional would get \$500 for the job. The top prize for the contest was \$100. The contestants signed away all their rights to the company. Their entries were not returned, and the company was free to use these entries for whatever purposes they chose."

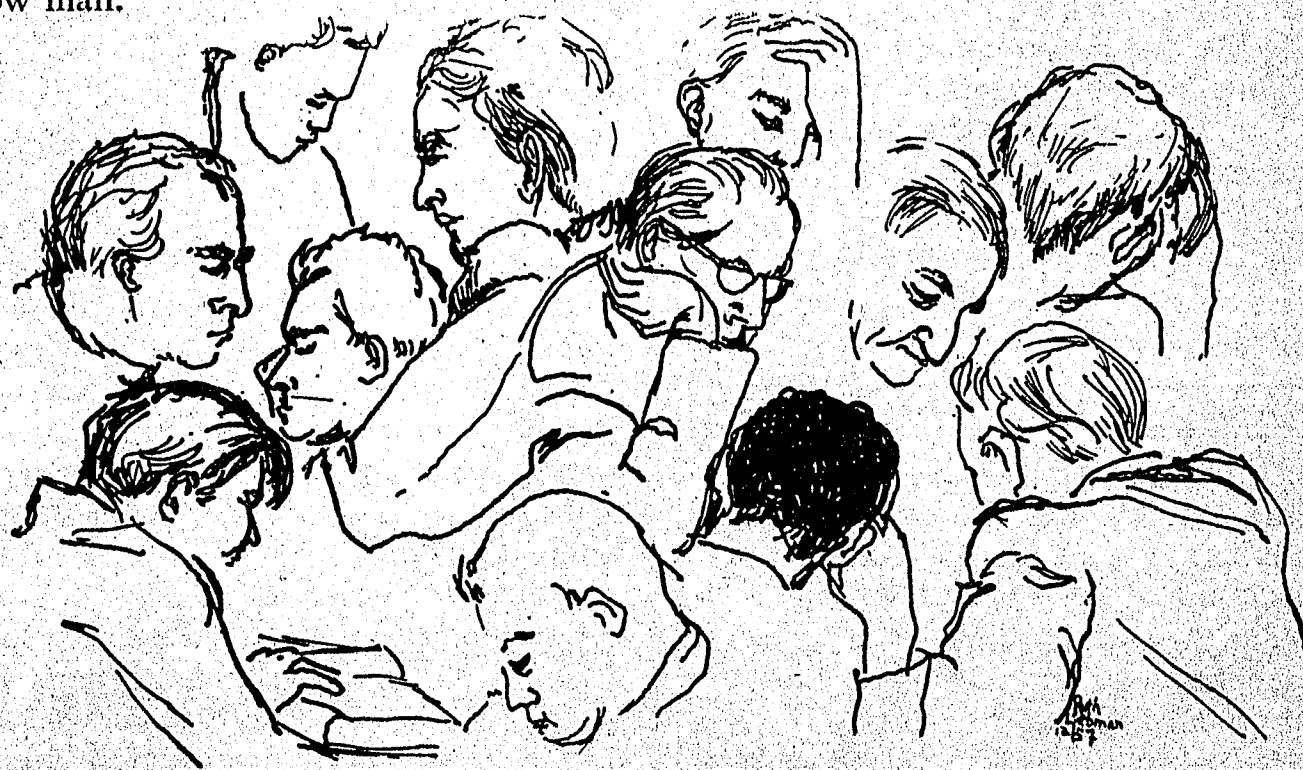
Professor Nelson is a professional artist. He has designed everything from trademarks and New York taxi-cabs, to interiors and fluorescent fixtures. "One of the disturbing features of design," he said, "is that probably 90% of the work one does never goes into production. Either it is discarded, or else it is adapted in such a way that the final product emerges completely unlike the original."

Professor Nelson attended Cooper Union, which he thinks of as an "experimental workshop." He knew Pavel Tchelitchew (the painter of 'Hide and Seek'), and often went to his studio to speak with him, and learn. Professor Nelson would speak with artists and hear their ideas. While attending CCNY, Nelson had many an interesting conversation with Professor Haskell, one of the few true academicians. And now, Nelson, himself a professor at The College, gives his thoughts and learning to his students, "scholars" as he calls us.

more cognizant of the engineer and bring themselves to him. The arts must encourage science to be resourceful, imaginative, creative, and original," emphasized the Professor. "The arts are uniquely qualified to perform this function because they are not burdened with cause and relationships. The art student can be introspective, original, subjective. The average engineering student doesn't have the time to be investigative. Yet, the engineer can be creative. Let him take existing information and do new things with it."

Roebing, the inventor of the Roebing cable, who developed the suspension bridge, is a model of creativity. Roebing overcame contemporary technological lags and designed his own cable-weaving machine which worked its way like a giant spider. He set new standards for the world in the designing of a long span. "He looked to a natural phenomena and improvised and created."

Professor Nelson defines a genius as, "just one who is cognizant of a problem some short period of time before his fellow man."



ON... is not just relegated to art; it is open to everyone, and embraces all aspects of learning. To be creative is to be a positive thinker. This is true of scientists, artists, storekeepers, all citizens in daily life."

These are the words of Professor Arthur Nelson, Professor of Art at City College. "A European once said to me," related Professor Nelson, "that very rarely did I hear one in America say, 'It is impossible.' I think the American is not as hampered by convention as is the European. Europe is too confined by convention. The people are hampered by pre-existing knowledge. They should be encouraged to make original decisions, find new ways of doing things."

"Creativity can be encouraged by giving people confidence in their own experience, and by encouraging people to solve their own problems. If persons can't solve their own problems, in all probability no one else can solve them. Too frequently the student says, 'I didn't know I was allowed to do this.' In the case of such an uncertainty, if the student weighs the evidence, his conclusion is a valid conclusion."

One of the purposes of the college is to teach us to assemble facts and come to our own conclusions. As Kahlil Gibran put it, "A good teacher leads a man to the threshold of his own mind." Looking in from the threshold of a man's mind, it would be nice to see many rooms full of new ideas. If there are not too many such rooms in the mind of the engineer today, the reason may be that he is bothered by scientific approach and the learning of fundamentals, and "does not have time or opportunity to nurture his imaginative side." "I believe," said Professor Nelson, "that instead of the engineer going to the arts, the arts should be





## HOOT MON!

By SALLY SHERWIN

You cats who cry that operas were written by and for long-haired squares; who picture overweight squeaky-voiced broads, in overstuffed draggy Victorian settings, wailing away at the top of their lungs about drivelling matters as being the essence of opera, dig this.

... the true conceptions of a modern jazz addict who, heretofore, had considered Bach merely a springboard for the more creative efforts of progressive musicians. This cat recently swung himself down (only because his chick wanted to go) to City Center to hear *La Traviata*, fully prepared to sleep, if not die, during the performance. Man, was he surprised! He said he got so goofed by the story that he couldn't wait for the intermissions to be over (they were as bad as TV commercials). Most of the time he sat on the edge of his seat because the music and singers were so exciting that he didn't want to miss a note. What shook him the most was that he became such an immediate convert to opera that he has since split his time between Birdland and the Met.

Possibly this won't happen to you, but more probably it will. Many people are really afraid to attend their first opera because they fear they might like it, and, in turn, will have to admit to their hip friends that they've become "square." In all probability you'll find the pleasure far outweighing the pain of that confession.

A good beginning is an operetta, and a good operetta is *The H.M.S. Pinafore*, which is being staged by the Gilbert and Sullivan Society on December 20 and 21 at the Joan of Arc Auditorium, 154 West 93rd Street. Tickets, ranging from \$1.00 to \$1.50, can be purchased at the Auditorium's box office, and in Room F 440 on Tuesdays, Wednesdays and Thursdays after 6 P. M.

Don't miss it. You'll feel very much at home when you see all the familiar faces of classmates you never suspected were "squares."

### SUMMER WORK

Applications for summer employment at the Los Alamos Scientific Laboratory of the University of California should be filed before January 15, 1958. Consult Placement Office for details. Brochure is in room 213 F.

## THIRTY

by paul alper

Personally, next to a dissertation on "The Used Shoe Lace Industry of Latvia," a "Thirty Column" is the literary piece of work I enjoy the least. The usual clap-traps of how Professor Soandso has given me more than an academic education, but rather a vibrant outlook upon the universe or how Coach Whatchamacallit and "his boys" showed me what a fighting, driving team can do for Alma Mater when instilled with that certain something called guts, makes me nauseous.

Therefore, as my "Thirty Column" I would like to have printed an editorial I wrote which was subsequently rejected by the editorial board because of an unusual attack of common sense on its part.

"A political phrase of last year, 'Don't just do something, stand there,' might aptly be applied to the current inactivity at City. Gone are the days of radical political clubs with their membership of vibrant, dedicated people. No longer do students stand on Convent Avenue distributing left-wing literature.

"It was only a few short years ago that CCNY was known for its liberalism and students who were willing to stand up for what they believed was right even if society disagreed. Where and how did this paralysis begin?

"Of course, it is very easy to explain everything in terms of McCarthyism and its general climate of 'see no evil, hear no evil, speak no evil,' but outside influences are not sufficient by themselves. Perhaps it is because the clientele has changed drastically from the distraught, seething introvert of the thirties to the upset, crazed females of the fifties. Co-education, just as dope, while immediately stimulating, may eventually lead to the complete dulling of the cerebrum. Altogether too often City College co-eds look upon CCNY as a veritable Valhalla for finding eligible lifetime companions and not as a place to spend intellectually

diverting hours. Needless to say, the effect they have upon the rest of the student body is debilitating.

"Unfortunately, while the undergraduates have been busy cringing in corners the Administration has not been idle. Membership lists and ID cards have now become the accepted way of life; *as much a part of us as the hurried walk to the subway when the last class is over.*

"However, the leading offender in terms of undergraduate apathy towards non-conformity is probably the Tech School itself, with the perpetual cry of the engineer being 'lack of time. While the engineers were a small minority 25 years ago they have now grown to where they represent over 50% of City College and consequently their short-comings (*justifiable or not*) are becoming increasingly felt. Moreover, the engineer is constantly channeling all his efforts in a mad desire to determine starting salary, employment possibilities, future advancements, and fringe benefits; in short, his only concern seems to be economic security. Security above all; never say anything out of the ordinary; be just like the next guy and no one could ever label you an 'Old ball.'"

I stand ready to defend my position with value judgments, glittering generalities, pious platitudes, and subtle innuendos.

Friday, December 20, the Newman Club will have its annual Christmas Party. There will be an open house for all faculty members from one to five p.m. at the Cathedral Center, 469 West 142nd Street, between Convent and Amsterdam avenues. Following the faculty reception there will be a dinner for all interested in coming and dancing at the club that evening.

One of the chief (or stereo) sound of reproducing must be purchased two amplifiers, a tape deck with The higher cost To enjoy this system buy stereo tapes as much for conventional pre-recorded and may quite a supply, with what-have-you available or not may be.

A sort-of solution been the frequent some of the best system has serious main difficulty one of the two committed by AM (devotee doesn't shortcomings of of wide frequency inter-station distance from nearby tv to a rather aggressive enjoy stereo sound

Multiplexing already booming the serious listener of FM broadcast split phase-shift or more program principal program the-channel rest that a single three or more simultaneously using one carrier frequency can be

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# BINAURAL SOUND BY MULTIPLEX

— ENHANCING THE ILLUSION —

BY WALTER SALM

One of the chief drawbacks of binaural (or stereo) sound has been the high cost of reproducing equipment — everything must be purchased in twos; two pre-amps, two amplifiers, two speaker systems, and a tape deck with double playback heads. The higher cost doesn't end there, either. To enjoy this system, the audiophile must buy stereo tapes, which cost at least twice as much for comparable playing time as standard pre-recorded monaural tapes, and may quite often run into problems of supply, with stacked, staggered and what-have-you different breeds of tape available or not available, as the case may be.

A sort-of solution to the dilemma has been the frequent binaural broadcasts on some of the better radio stations. This system has serious disadvantages, the main difficulty being in the fact that one of the two channels must be transmitted by AM (standard broadcast). The devotee doesn't have to be told about the shortcomings of AM radio — total absence of wide frequency response, interference, inter-station distortion, oscillator squeal from nearby tv sets, all of which add up to a rather aggravating evening trying to enjoy stereo sound.

Multiplex may well be a boon to the already booming hi-fi trade, as well as to the serious listener. Multiplex is a method of FM broadcasting that uses an ingenious split phase-shift system to broadcast two or more programs in addition to the principal program going out on the center-of-the-channel resting frequency. This means that a single FM station can broadcast three or more separate programs simultaneously using only a single channel and one carrier frequency. Obviously, multiplex can be a big money-maker for

stations implementing pay-as-you-listen Musak-type systems. More exciting to the audiophile, however, is the prospect of a single station broadcasting *both* binaural channels on FM!

Multiplexing has been used for several years in communications systems, and two years ago, the FCC gave its stamp of approval to multiplex broadcasting on commercial FM. Several stations have since gone on the air picking up side-money with their side-channels. Technically, anyone with the proper equipment can pick up the "closed-circuit" FM broadcasts, but there are laws governing this, and such illicit use in a public establishment can easily become a federal offense.

For all practical purposes, multiplex enables a station to broadcast two additional programs over and above its main program, which we will designate as program "A." The "B" program signal modulates a low-frequency subcarrier of 41 kilocycles. This subcarrier, if properly handled, can easily accommodate an audio signal up to 15 thousand cycles. Next, the subcarrier is impressed on the "A" carrier wave in the form of a phase shift, resulting in a total modulation of 10 to 20%. A phase-shift type of modulation has the same net result as ordinary frequency changes (frequency modulation), but the rate of change of the subcarrier is well above the audio range of the modulating wave in channel "A", and can therefore be separated at the receiver.

The receiver operates normally for the "A" channel, while subchannel "B" is piped from the discriminator stage through a low-frequency broad bandpass filter. Channel "A" is held back like spaghetti in a strainer, while channel "B" flows through the "holes" easily. "B" channel

then goes through some more amplifying, limiting and detector stages, and, of course to a separate output. Hook up two amplifiers and two speakers, and you're in business.

The whole thing sounds almost too simple, and, basically, it is. It was developed mostly by the then-indestructible Major Armstrong, and highly successful tests were made in New York in 1950. For the next five years, the FCC sat on the idea, trying to reconcile "pay-as-you-listen" multiplex with the free-to-the-public broadcasts that are normally required by law. They finally ruled in favor of the new system, and some stations now provide subchannel music to augment their incomes.

The other subchannel is free, though, and a few stations have started broadcasting multiplex stereo on a more or less experimental basis. There are few multiplex receivers commercially available, and the electronic wizards have yet to market a do-it-yourself adapter, all that will really be necessary in most installations.

As with other new innovations, multiplex may take time to catch on, but it is the next logical step in binaural sound systems, and it indicates an early death (and good riddance) to AM-FM binaural broadcasts.

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## CCNY HOW GOOD?

## HUNTER VS CITY

This article is the third, in a series of articles which try to compare City College with other schools of higher education. We are comparing Hunter and City on the basis of the results of the questionnaires sent to transfer students from Hunter and would like to thank those students who were kind enough to reply.

Hunter College (uptown) is a small college situated on an enclosed campus. When looking at it you are reminded of the "ivy covered campus" that is often depicted in motion pictures. Many of the transfer students mentioned that the atmosphere of the campus itself was more conducive to study. They point out that CCNY has a campus composed of city streets and roads. One transfer student, Steven Kaiden, remarks, "I don't appreciate having to dodge cars when going from one building to another. Although it is nice to have a stray dog, every now and then in class."

Most of the students transferred to CCNY because they had to; if they wished to complete the course requirements for an engineering degree they had to transfer in their third year, as Hunter has only a pre-engineering course. There is little agreement on the question of how well they were prepared for this change. Many students remarked that math and physics courses were not given their proper importance at Hunter. All seem to agree that the arts program was much broader. It seems to be their opinion that the social studies and humanities courses are taught very poorly at City and that those teaching these sequences suppose that the Tech-men have no interest in them, and therefore why strain themselves trying to teach students who don't want to learn. The fact that physics courses were given

separately for engineers and math courses were not probably accounts for most of the trouble that these students are having with their math. Many remarked that the arts majors held back the classes and so forced teachers to proceed more slowly.

Many of the transfer students expressed the opinion that classes City College are run on the "factory system." According to them, because of the large classes, many of the teachers feel that it is their responsibility to teach a certain amount daily, whether the class understands the material or not, and that they must keep up to schedule, come hell or high water. In conjunction with this many students made reference to the mass lecture systems used in certain of the courses in chemistry and Civil Engineering. They seem to feel that this system represents the factory outlook, where a certain amount of work must be completed daily, so that in a given number of terms a student may graduate, whether he fully understands the subjects he has completed or not. "This leads to what is known as the robot system" by which a student can get the right answers, but not know why he got them. They realize that this is due to the extremely large enrollment at City.

This leads me to the next set of comments made, concerning student teacher relationships. If you can remember, most of the students who came from Brooklyn College stated that the student teacher relationship was much closer at City due to the small gap in ages between students and many teachers. The Hunter transfer students feel that this factor is not enough to overcome the large size of the college; they feel that there is something lacking. One student remarked that the size of

the classes does not give the teacher time to get to know the students personally. "While at Hunter the teachers often invited students who had problems, to meet with them in their offices to discuss these problems. Here, to see a teacher after class, there must be something really wrong with your work."

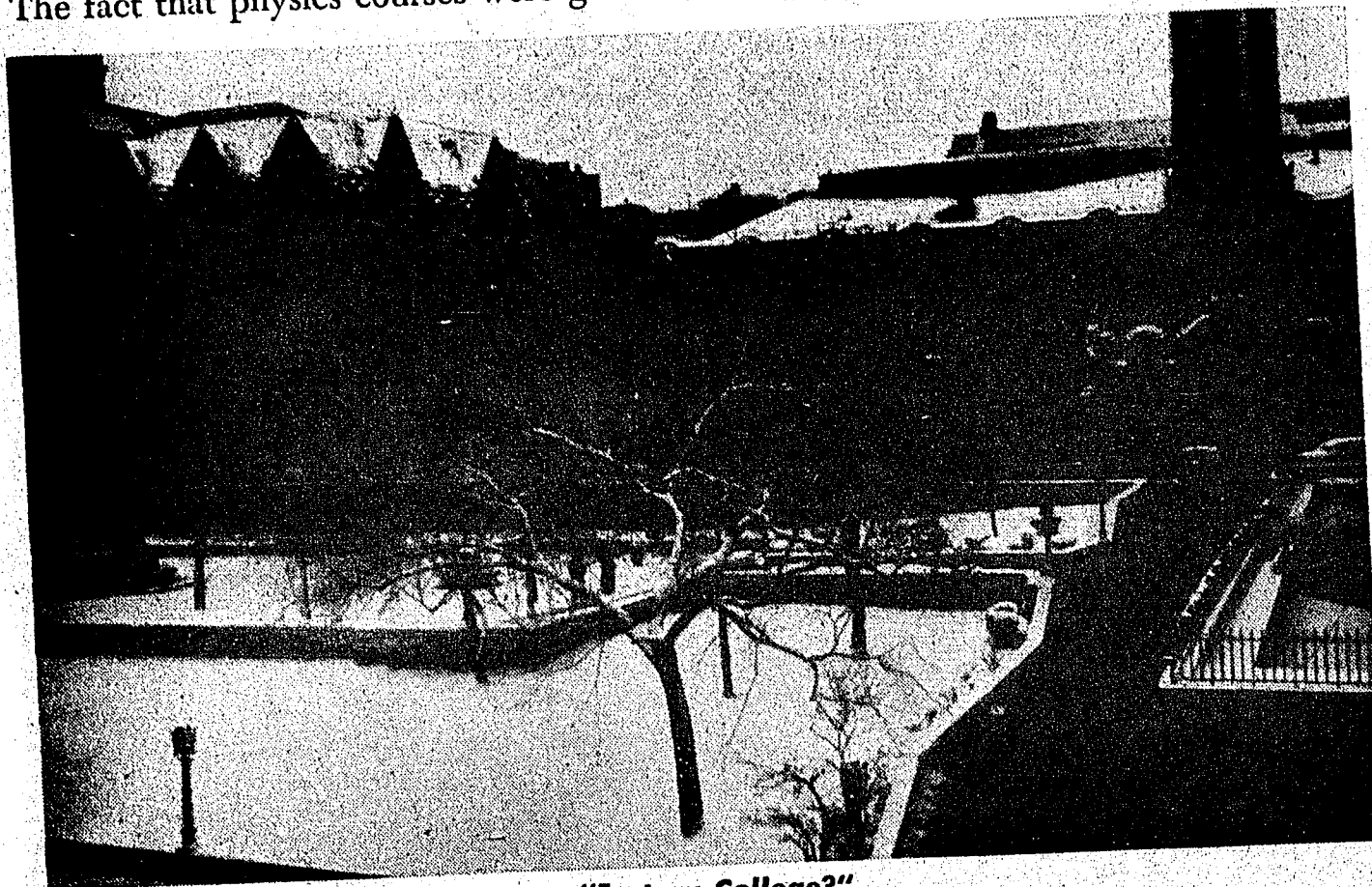
Most students express the opinion that the work here is much harder. This they agree is not due to any lack in their scientific background, but to the fact that for the first time they are taking a concentrated program of engineering subjects, with very few or no liberal arts classes. Many say that although the work is not harder, the amount of work given is so much greater that it forces them to drop behind in one subject while trying to keep up with another. Here again the idea of keeping up to the schedule, whether or not you understand the previous day's work. Others add that most of the learning itself has to be done at home, while at Hunter most of it was done in class.

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"Factory College?"

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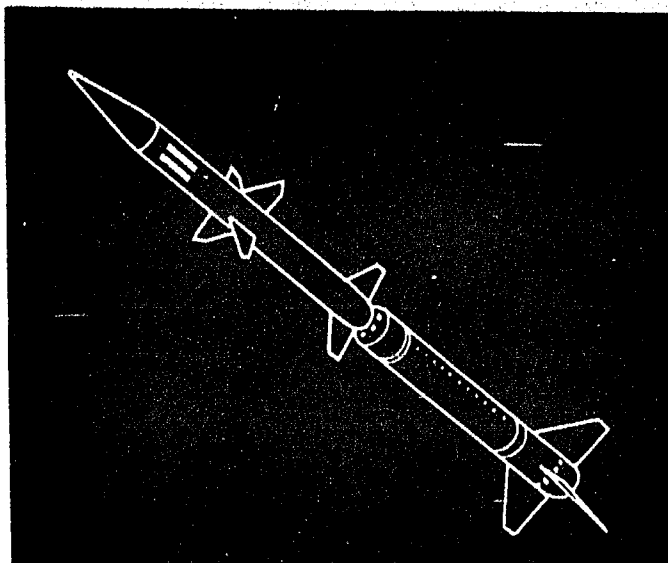
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DAILY SPECIALTIES

# CAMPUS GRIDDLE



## CCNY HOW GOOD?

## HUNTER VS CITY

This article is the third, in a series of articles which try to compare City College with other schools of higher education. We are comparing Hunter and City on the basis of the results of the questionnaires sent to transfer students from Hunter and would like to thank those students who were kind enough to reply.

Hunter College (uptown) is a small college situated on an enclosed campus. When looking at it you are reminded of the "ivy covered campus" that is often depicted in motion pictures. Many of the transfer students mentioned that the atmosphere of the campus itself was more conducive to study. They point out that CCNY has a campus composed of city streets and roads. One transfer student, Steven Kaiden, remarks, "I don't appreciate having to dodge cars when going from one building to another. Although it is nice to have a stray dog, every now and then in class."

Most of the students transferred to CCNY because they had to; if they wished to complete the course requirements for an engineering degree they had to transfer in their third year, as Hunter has only a pre-engineering course. There is little agreement on the question of how well they were prepared for this change. Many students remarked that math and physics courses were not given their proper importance at Hunter. All seem to agree that the arts program was much broader. It seems to be their opinion that the social studies and humanities courses are taught very poorly at City and that those teaching these sequences suppose that the Tech-men have no interest in them, and therefore why strain themselves trying to teach students who don't want to learn. The fact that physics courses were given

separately for engineers and math courses were not probably accounts for most of the trouble that these students are having with their math. Many remarked that the arts majors held back the classes and so forced teachers to proceed more slowly.

Many of the transfer students expressed the opinion that classes City College are run on the "factory system." According to them, because of the large classes, many of the teachers feel that it is their responsibility to teach a certain amount daily, whether the class understands the material or not, and that they must keep up to schedule, come hell or high water. In conjunction with this many students made reference to the mass lecture systems used in certain of the courses in chemistry and Civil Engineering. They seem to feel that this system represents the factory outlook, where a certain amount of work must be completed daily, so that in a given number of terms a student may graduate, whether he fully understands the subjects he has completed or not. "This leads to what is known as the robot system" by which a student can get the right answers, but not know why he got them. They realize that this is due to the extremely large enrollment at City.

This leads me to the next set of comments made, concerning student teacher relationships. If you can remember, most of the students who came from Brooklyn College stated that the student teacher relationship was much closer at City due to the small gap in ages between students and many teachers. The Hunter transfer students feel that this factor is not enough to overcome the large size of the college; they feel that there is something lacking. One student remarked that the size of

the classes does not give the teacher time to get to know the students personally. "While at Hunter the teachers often invited students who had problems, to meet with them in their offices to discuss these problems. Here, to see a teacher after class, there must be something really wrong with your work."

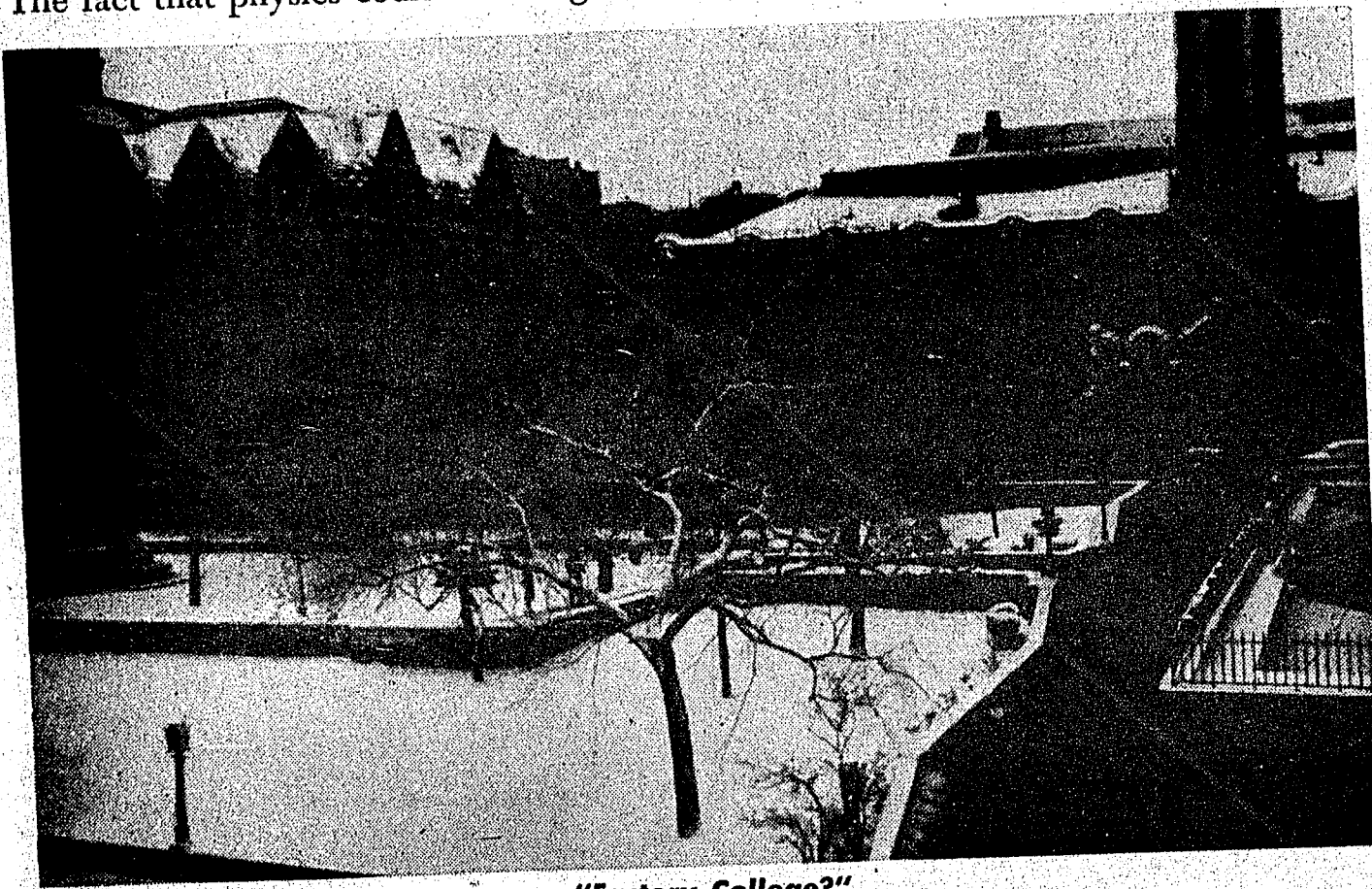
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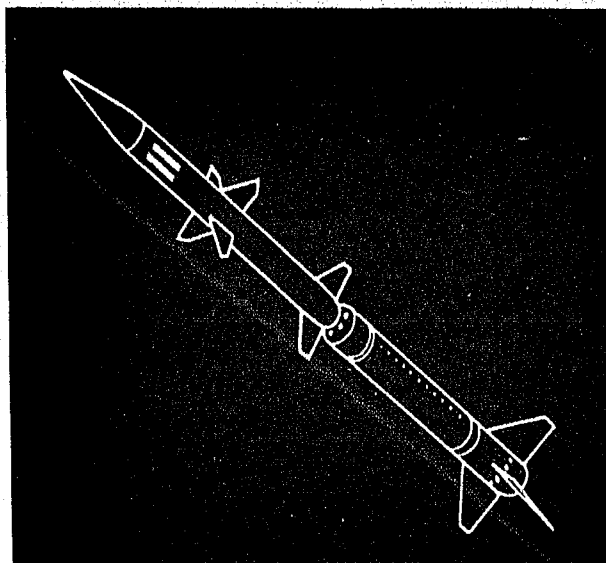
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# SPORTS

The AIEE clinched a tie in the Slide Rule Basketball League by beating ASME 82-55. Coming up with a tremendous team effort, the E.E.'s were never behind. Five of their players scored in double figures with Elliot Levine leading with twenty points. His fine all-round play, and Jack Stein's strong rebounding were too much for the M.E.'s who had to play the game with only five men. Larry Seciniaz, Artie Biederman and Myron Novak each scored twelve points for the AIEE. Gene Oshua of ASME led the game with twenty-two points.

The E.E.'s have won eight and lost none. The Chem. E.'s have a record of five and four. Should the E.E.'s lose their remaining scheduled games plus the replay of a canceled game, while the Chem. E.'s win their remaining games, a playoff game will decide the winner. However, if the E.E.'s win one more, or the Chem. E.'s lose one, the E.E.'s would be the champions. The possibility of a tie seems slim, indeed.

In the first game the Chem. E.'s kept their hopes alive by beating ASCE 46-44. Aaron Fierstein led his team to victory by scoring sixteen points.

The previous week AICHE edged ASME 54-53 in a double-overtime game. Fierstein scored the only point in the two extra sessions to win it for the Chem. E.'s Manny Bornstein and Gene Oshua scored twenty and seventeen, respectively, for ASME. In the second game AIEE beat ASCE 58-22. Leroy Callender, playing for the first time on the C.E. team, led the team with fifteen points. Elliot Levine was high man with sixteen.

MORTON COHEN

## LISTING OF NEW SOCIETY MEMBERS

### TAU BETA PI

Donald T. Winski  
Elliott Dembner  
Nicholas Hrinkevich  
Pascal Greene  
Irving Liberman  
Ira Lichtenstein  
Gurion Meltzer  
Barry Raftan  
Rowan Rifkin  
Frank Rus  
Theodore Scheiber  
Michael Teig

Harold Blatter  
Fred Bonnet  
Harry Halpert  
John Heel  
Morton J. Rosenberg  
William C. Stevens  
Karl Zaininger  
Alfred E. Smith  
Horacio Morales  
William Sorrentino  
Theodore Stathos

### PI TAU SIGMA

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B. Arnstein  
G. Cecchini  
L. Hauben  
R. Parker

B. Plumer  
K. Robinson  
P. Rosenfeld  
E. Sosinsky  
M. Vagins

### CHI EPSILON

Howard P. Dinesman  
William D. Douglass  
Barney La Greca  
David Mendelson  
Richard R. Metzner

Charles Mortopoulos  
Irwin Rosenstein  
Harold Smetana  
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Congratulations to Morton Kalet, EE '59 on his engagement to Celia Kalmanowitz.

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R. Josepm

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