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Editorial ---

OUST AFROTC

*) : the

The virtue of University ties with the military establishment have recently taken a macabre twist. past, military contracts were much sought In the after, the financial gains which were reaped were seen as the principal overpowering reward. Eisenhower's foreboding of "unwarranted influence", the astronomical growth of an unsatiable "defense" industry, and the morality of a difficult to justify war have combined to caution educators and students alike of the merit of such ties. Any military link now exudes an aura of subversion to academic freedom and is contrary to the "fearless sifting and winnowing" process. The Army Math Research Center and T-16 have lately felt the physical brunt of an imposing intellectual affront.

The above judgments should be sufficient to oust AFROTC from the Mechanical Engineering Building as well, but the real reason lies in the 3,200 square feet of space they now occupy, space very sorely needed by the College of Engineering Library.

Any college graduate entering a technical field can testify to the high turnover rate of the personnel and the rapidly reduced relevancy of his "education." He must work diligently to remain "on top" of his trade. This problem becomes acute in the case of a technical library. The turnover rate of technical literature is immense, a collection must be augmented incessantly, hence, space for expansion must be provided.

The autonomous College of Engineering Library has "expanded" into five locations: a rented storage facility, now full, at 2205 University Avenue; the basic library on the third floor of Mechanical Engineering, housing most contemporary technical literature; a recently assigned room 370 (M.E.) for much needed study space; several microfilm reading rooms and storage space on the fourth floor of Mechanical Engineering; several offices at 1324 West Dayton Street, housing the Director, Associate Librarian, Acquisitions Department, Serials Acquisition, and Processing. (This last location is somewhat of a distinction as the only library in the United States where the Librarian and the Associate Librarian must work outside of their main library location).

Future prospects for the Engineering Library are not bright. In a year the twenty-four study spaces presently in the library are scheduled to be removed. The Library of Congress book sections and bound periodicals will be glutted in two years, just as the index/abstract sections and current periodicals already are. There are no additional space allocations planned.

There are plans however, to build a new Engineering Library, but its priority number four has been changed to seven. Time estimates for occupancy of a new building range from four to ten years. What is needed is an interim solution. Ousting AFROTC would free some much needed administrative space and might initiate a much needed University split with any and all military organizations.

Roy Johnson

Women's Liberation

SUSAN O'TOOLE

When women won the right to vote a short fifty years ago, it seems that they settled back after a long, hard battle and continued to accept the same basic oppression that they had accepted before their legal emancipation. Although there has been little progress toward equality for women, either social or occupational, since 1920, the time is ripe for a new movement. During the last decade while white America began to think seriously for the first time about what the word "equality" really means, women began to realize that their lives, like black lives, were restricted by discrimination and that their dignity, like black dignity, was crippled by stereotypes. The fact that the movement for women's liberation is snowballing across the country is indicative of the strength and the nature of the oppression. When women see the increasing strength in numbers of the movement, their fear of speaking out dissolves and the bitterness inside explodes.

Beginning in the early years of the 1960's, organizations for women's liberation have sprung up across the country, gaining members slowly at first, then growing rapidly in the past two years. The first was NOW (National Organization for Women) founded by Betty Friedan, author of **The Feminine Mystique**. In 1968, a group of women split from NOW and formed a new and more radical organization – The Feminists – while NOW continues to draw more conservative members from the professional classes who concern themselves mainly with problems of sex discrimination in hiring. The Feminist philosophy is broader in Three general occupational groups constitute the philosophical conglomerate known as "Women's Liberation." The "occupational" breakkown - students, working women, and middle class married women – represent a spectrum of political ideologies and interests. Each group shares the different methods of male exploitation – sexual, economic, and psychological – to varying amounts and ends. The following articles, labeled "Women's Liberation – I, II, & III," are viewpoints from the three occupational groups which by no means attempt to finalize the philosophy but explore the exploitation

scope and more radical in its implications for women. They came together two years ago to work for an end to sex roles, and they reject marriage as inconsistent with their goals. Other organizations such as Boston Female Liberation, Bread and Roses, WITCH (Women's International Terrorist Conspiracy from Hell), and Redstockings may have different goals and methods but they draw women who hold in common a passionate dedication to gaining equal rights for women in all areas.

The most fundamental change that movement women want to make is in the role of women primarily as housekeepers. From early childhood we socialize little girls by convincing them that to stay home and like it is a virtue and to be aggressive or ambitious is bad. For the first time in the history of this country, women are not only speaking out as a group against the injustice of being trapped in the house doing dull and dirty work, but they are trying to do something about it. They are asking for the right to chose their life's work from among several alternatives instead of being forced by circumstances into an unwanted way of life. Of course, there are many women for whom housekeeping is entirely a work of love and who can draw on it potential for creativity and satisfaction. Unfortunately, there are many women whose personalities simply deny gratification from this kind of work and they find themselves trapped in their own home, feeling frustrated and guilty.

Frustration, the most terrifying threat to the

modern housewife, will communicate itself to husband and children. When a woman's desire for creative action is unrealized, when her life loses its meaning as individual growth, when her only touch with the outside world is through her husband and children, her family suffers as well. A woman in this position often lives not only for her children, but through them. She may impose her own desires on their lives, in order to gain satisfaction from their accomplishments. This is a heavy and very unhealthy burden to place on a young child who is trying to find out about himself and to sort out the chaos of his own drives. Perhaps when women are happy with themselves and secure in their own identities, we can return to parenthood its rightful function of gentle guidance not forced direction through the early years of life.

In our society where the measure of your worth continues to have a direct relationship to the amount of money you earn, women's status is the lowest of the low. Their work is not "real" work since they have no income. Money simply passes through their hands. With all that money to spend on the best peanut butter and detergent, manufacturing consumer products is a profitable business as long as the product is New or Improved or both every year, and advertisers bog down in some rather strange trivia trying to sell it. The modern housewife, as advertisers see her, won't speak to her best friend Alice on the grounds that Alice secretly switched laundry detergents and now her whites are whiter or her colors brighter. One hysterical housewife discovers New Lemon Pledge a split second before her bridge club arrives and says, "The girls will think I've been waxing all day! Ha!" She will probably be right in assuming that her friends are more concerned about the dust accumulating on her stereo than the dust accumulating in her head. The final tragedy is the man who is almost fired because of his wife's pie crust. She discovers Crisco, however, and he is promoted to vice-president.

Women must be free to chose a career as the alternative to being a housewife. This necessitates, of course, a change in the present social system and a new look at family roles. Many women see the solution in a fair division of labor between husband and wife, including care of the children. Husband and wife might profit from an experiment in sharing responsibility and tasting new experience, and children will not lose a mother but gain a little more father. Large groups have experimented with cooperative playgrounds and communal child raising in which both parents put in equal time. Many women's organizations feel that some form of socialism is necessary and inevitable if the change in sex roles is to be accomodated.

Pressure from society to retain the role of housekeeper is reinforced by sex discrimination in hiring. The general pattern for women is that they

are the last hired, the lowest paid, the least promoted, and the first fired. Statistics show that in 1965 the median wage of year-round full-time women workers was only 60 per cent that of men. More specifically, a study in 1960 shows that women in clerical positions were paid, on the average, \$1600 less per year than men doing the same work; women in semi-skilled jobs were paid \$1900 less per year than men doing the same work; and women doing professional work were paid \$2600 less per year than men. Moreover, women overwhelmingly outnumber men in clerical positions, only making very small inroads into the professions. In fact, only 10 per cent of all scientists are women, 7 per cent of all physicians, 3 per cent of all lawyers, and 1 per cent of all engineers.

The reason for the very small number of women in the professions is not, of course, that women are denied training in engineering, medicine, law, or business or even that women are actively discouraged from entering these fields. Of course, women students in these areas inevitably must deal with a certain amount of alienation or must cope with male students and faculty who tend to be overly patronizing, like the professor of the isn't-thatcute-she-wants-to-be-a-lawyer variety. However, these are minor troubles and not enough to account for the lack of women in the professions. The problem is that engineering, law, business, and medicine are generally not considered "women's work" like teaching, nursing, and secretarial work. From the time a child is old enough to express himself, he is bomdarded with questions like, "What do you want to be when you grow up?" The child learns quickly that little boys grow up to by firemen, doctors, and presidents, and little girls grow up to be nurses and mommies. When little Johnnie tells his aunts and uncles that he want to be a nurse or grow flowers when he grows up his parents whisk him off to a psychiatrist. We allow little girls to be "tomboys" for awhile, but when a girl reaches high school age and is more interested in chemistry, physics, and math than in giggling, her parents may begin to worry. The young woman who breaks out of the sterotype that has been created for her and decides to enter law or business school is more likely to meet with confusion than encouragement, and the road to a degree may be all uphill.

We must stop limiting our children's occupational and economic opportunities at birth by associating specific occupations with one sex or the other. We must stop perpetuating stereotypes of female scientists as sexless, and ambitious women as masculine. We all know the story of the busy executive who relieves his mousey secretary of her black glasses and the bobby pins in her French Twist and discovers a gorgeous sexpot with flowing blonde hair. If she came to work the next day with her hair down, he would have to fire her. Women can make carbon copies or love, but for some reason they can't do them both well. If we truly believe that women and men are intellectual equals, there is no rational basis for the sex dichotomy that we have created for the professions. For a young girl deciding on her life's work, law or medicine should be an occupational possibility, not an occupational revelation.

The really important issue in the area of job discrimination, however, is not professional status or relief from boredom. The majority of working women in this country are not frustrated suburban housewives who want a little extra money or a little excitement. In 1967, sixty-two per cent of all women at work outside the home were doing so out of economic need. This means that income was needed for personal support or support of a family. Statistics show that the average yearly income of working women is less than the average income for non-white men, and in the lowest levels of income are non-white and third world women who suffer from both racial and sex discrimination. Women, like blacks, form a cheap labor pool which has been exploited during wartimes and during labor strikes. During WWII, women were encouraged to work but were shooed out and forgotten when the men returned.

Aside from practical problems of job discrimination and family roles, the movement for women's liberation rejects the social and sexual roles that cripple a woman's individuality and self-respect. The role that we have given to women as dependent, security-crazed, helpless creatures is equally as absurd as the role that we force on men as unemotional strongholds. Both sexes might profit from an approach to each other as individuals who can share all thoughts and emotions. Our society tends to see women as extensions of their men, with very little substance or identity until they are defined by their husbands. Unmarried women are often pitied as only half alive. It is no wonder that young girls grow up spending half their time getting ready for the race to catch a husband. In this situation, competition between women is encouraged and friendship suffers.

Women will never make effective or prolonged changes in their position until they organize on a large scale, hopefully across racial lines, and agree to work for common goals. A common accusation directed at women who are involved in the liberation movement is that they take all men as the enemy. But it is men in this country who have the most power and should have as much desire to help women be free. Men and women are not enemy camps in the struggle, they are both on the same side, fighting to make a better world for everyone. The initial actions of the movement, particularly those of radical women's organizations, may cause friction and competition between the sexes, but the desired result is cooperation between men and women on an equal basis instead of antagonism in a dominant-submissive system. Perhaps when women are more secure and happy in their identity, men will be more happy in theirs. Women do not want to usurp men's rights, they simply want to share the advantages as well as the responsibilities. Our country and our world will be facing serious problems in the next decade and possibly a final crisis in the face of insupportable population or nuclear war. If we are to solve our problems or at least alleviate the pressure, cooperation among all people must be the foundation.

Nevertheless, the times are changing and a good look around will show that women are beginning to see themselves in a different light. They are looking at their place in society not as it always has been, but as it should be in 1970. Like blacks, they are learning more about themselves by looking at their history as a group. Stevens Point State university has taken action that indicates how far the movement has gone and how far it still has to go. There will be a new three credit course at Stevens Point on "The American Woman." The content will include several women in history who rebelled against society's oppression of women and the course will be conducted by Professor Ron Hogeland. Courses on the history of the civil rights movement or in black literature have been established in our universities for some time, but it took a little longer for us to see that only black professors are qualified to teach the courses. I hope we will follow the same pattern in the study of women's movements.

The desire for equality between the sexes does not include the desire to wipe out differences between the sexes or just pretend that they don't exist. Women are not like men and they never can be. But the fact that they are different should not mean that they are less important. The black minority in our country is finding that the way to freedom lies in taking pride in those things that make them black and finding new self-respect in a new identity. Women must take pride in the things that make them women. To be a woman is beautiful in itself in a way that is different from the beauty that Clairol or Revlon promises. Lasting beauty comes from natural sources and a full life in both men and women. On the other hand, occupational disadvantages should be recognized and accepted. Men are stronger physically and often emotionally and consequently they are more capable in certain areas. Women's Liberation does not offer freedom at the expense of sensitivity or tenderness. Femininity and masculinity are qualities that characterize the way in which people act, they do not dictate the action. Social, political, and economic equality can be realized when women are confident in their claim to equality and proud to be both free and women. [***]



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Women's Liberation

DIMI METTING

The population crisis is upon us, yet women still must fight for the right to not bear children. We are facing famines of catastrophic proportions, yet women still are taught to seek fulfillment in the home. The role of woman must be updated to meet the needs of the society. Women must take the lead in pressing for radical changes that will enable us to survive as a species. Women can and must promote values that will turn this human world into a humane one. They must shift their focus from neurotic preoccupation with their immediate families to a campaign that will encompass the entire human family. Woman's liberation is a logical and necessary precursor to human liberation.

Population control is our immediate need. If we do not take positive, prompt action we will have to face frightening consequences. **The Population Bomb**, by Dr. Paul Ehrlich, gives a scientific analysis of women's liberation. Certainly it provides impetus for a reexamination of abortion, birth control, family planning and the religious and cultural barriers to rational planning. It repudiates the myth that population growth contributes to a higher standard of living and economic growth.

Population control is the immediate need, but

the chances of something being done, especially by men in this society, seem slight. Men have a vested interest in keeping women in the home, and that is not difficult when they are either pregnant or burdened with the full responsibility of older children. The woman in this situation is dependent on a man, thus maintaining the myth of his superiority. The question is – will he maintain that myth at the cost of extinction?

Women can provide a powerful and imaginative approach to population control. Perhaps their greatest strength lies outside the traditional avenues to power. The large number of married women who seek illegal abortions each year gives testimony to the fact that women are not bound to "proper" legal channels when their personal rights are not upheld by these channels. Women must make every effort to present facts to all women facts about contraception and abortion. More importantly they must explore other means of personal fulfillment than the nuclear family. Massive procreation is senseless when there are so many children who do not receive adequate care. Adoption, child sharing, and communal living must be considered. Women who are well informed will be better able to make personal choices that [***] directly affect the society.

Women's Liberation III

MARY JO DEYSACH

I'm for not wearing bras. I'm for women getting men's wages when they do men's jobs. I'm for women doing men's jobs if they are qualified. I'm for pants-suits. I'm for women having a life of their own and a career if they want it. I'm for women having a life of their own and not having a career if they'd rather be home knitting and making babies. I'm also for having a man hold my coat for me, open doors for me, drop me off at the front entrance while he parks the car, carry the heavier bags of groceries, and give me his arm on an icy day. I'm for having my husband support me and for letting me bring in more money than he does, if that's what I want to do.

It's the same old story that we were taught in civics - you can't have rights or privileges without paying for them, one way or another. If women want to become just like men they will have to accept being treated just like men. Some women wouldn't mind - I would. If we want to be treated like women then we have to act like women. The

price of femininity is small - smelling nice, looking firm, yet soft and round in the right places, a pleasant voice . . . all the little things that every woman knows. It's also having a good mind that keeps on working even after graduation. Dumb blondes aren't feminine – they're just dumb.

I'm not saying that women should be less than men – just different. And in this difference lies their power. I'm a firm believer in the adage that behind every man there is a woman. A truly feminine woman knows how best to handle men and especially **her man**. She has the subtlety that most men lack. What I mean is – whether behind the scenes or in front of the lights, a woman will go farthest – whatever her goals – by using the unique qualities which are hers as a woman. Few women will succeed because they can win a fist fight with their boss or husband. So let's not try to be like men. Let's try to be as good at being women as men are at being men – maybe better.



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Progress Report: E DAY

ROY JOHNSON

The year 1970 has been acclaimed as the precursor to a decade of change. An early indication of projected radical directions is the nomination of a noun over the customary adjective as the mixed medias message to the masses. The predicted winner of the annual vocabulary lesson is "ecology" over an early adjective favorite, "viable."

There is an opportunity to enrich this potential political debauchery. One may augment a simplified press word vocabulary to encompass a veritable ocean of "ecological" terms and concepts, a vocabulary which will allow consituents to make rational and cogent decisions on a promising hotbed of political debate. The voter, instead of rotting in resounding rhetoric, may be able to separate the grain from the chaff, possibly reversing the decline in the quality of his life.

April 22, E-Day, is everyone's opportunity to become informed about the environment, the extent of its deterioration, the kinds of pollution encroaching upon us, and some feasible solutions. E-Day (the 'E' in this case stands for environment) will concentrate information exemplifying all aspects of the environment, hopefully answering a multitude of questions, and elevate everyone involved far above a singular press word, "ecology". The impending E-Day is representative of considerable initial effort on the part of both community and university people. Progress is far beyond fragmented efforts, as the various groups have established liasons which avoid duplicated efforts and pool resources. Thus far, the exertion has been rewarding. An environmental referendum will be on the April 7, 1970 ballot in Madison. Passed unanimously by the City Council on February 12 was the following:

"Shall it be the policy of the people of the City of Madison that we have the right to clean and healthy environment; which right has priority over any use of the environment for public or private ends; that the City of Madison demand and achieve an end to the degradation of the environment through all powers available to it and through the advocacy of improved environmental control programs at the county, state, and federal levels of government."

A campaign is now being initiated to alert the voters. Voluntary help is greatly needed. Call the E-Day office at 263-1796 and offer your services.

A weekly Environmental Calendar will appear in the Madison *Capital Times* on Mondays and the *Wisconsin State Journal* on Sundays. Information deemed pertinent to ecology programs concerning either the community or the University can be published by calling Mollie Buckley at 262-4871 or 238-3905 (evenings).

An informational pamphlet is now being prepared on "A Personal Approach to Daily Living – The Anti-Pollution Way" by the Neighborhoods and Households Committee. Girl Scout troops have volunteered to distribute this pamphlet between April 11-19 to Madison households, but there are certain downtown areas which are not assigned. Anyone who is interested in walking for his health and the environment is urged to call the E-Day office (263-1796) and leave his name, address, and phone number.

Informational packets with background facts, reading lists, and visual aides are being prepared by the E-Day Research Committee. Contact any of the people listed if interested or to pass on information.

Food Additives, Helen Agresti, 257-2383 Politics & Environment, Kathleen Learned, 238-9664 Water Pollution, George Gallepp, 238-8818 Wildlife, Wayne Hause, 251-1115 Historical, John Wolf, 244-5380 Noise Pollution, Bill Amblo, 244-2018 Solid Wastes, Dana Yarger, 255-5327 Population, Sue Wolf, 244-5380 Transportation, Mike Fink, 255-4928. The undergraduate reading room of the

Memorial Library, Room 120, is also collecting material on the environment, pollution, and population.

The E-Day office (room 1118, 1225 W. Dayton St.) needs additional staffers on Monday. Wednesday, and Friday mornings and on Tuesday and Friday afternoons. Volunteers to answer the phone, type, etc., should call Lucie Vogel at 263-1796. [***]

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CAMPUS INTERVIEWS March 18

Contact College Placement Office to arrange interview appointment.



SINGLE PURPOSE PLANNING, THE UNIVERSITY, AND YOU

W. THOMAS LAMM

The second phase of the University Avenue improvement project opened for traffic last December. This phase involves four lanes of expressway from Randall Avenue to Farley Avenue. The first phase of the project began in 1966 with the reconstruction of Johnson Street and a connection to University Avenue near Babcock Drive to accomodate the one-way traffic system. Construction of the third phase of the project between Farley Avenue and Segoe Road is expected to start after July, 1970.

The "improvement" project is under the of direction of the state department transportation, a single-purpose agency with the responsibility of efficiently moving traffic. Traffic is moving efficiently on the new expressway, but without safeguarding the social and environmental values of the University community. This expressway runs through one of the densest population areas of the city, itself a travesty, and compounds the damage by not providing compensatory measures for its shortcomings.

Harold Gilliam, in an article titled "The Fallacy of Single-Purpose Planning," discusses the necessity for environmental and aesthetic concern in all business and governmental sectors. He states that: "A human being needs fresh air and clean water, space and beauty, the opportunity not only for exercise and rest in quiet surrounding but for stable social relationships. He needs to consider his work worthwhile and to participate in decisions that affect his community. If any single structure is subversive of these purposes, it is a bad structure, no matter how efficient or well-designed it may be from a single-purpose standpoint."

Notice that he says that a human being "needs" the things he has mentioned; he does not say that they would be nice as long as they don't interfere with other considerations. These environmental characteristics are necessary for the psychologically and physically healthy man.

Man needs space, beauty, and the opportunity for exercise. These needs have been made impossible for the Sellery-Ogg-Witte dorm dwellers and area residents as a direct result of the expressway construction. Vast areas that were appropriated for recreation are now cement. This beautifully planned dormitory complex has been turned into a concrete cell block. In addition, the consistent noise of squealing tires and horn blasts from West Johnson St. is a significant annoyance to these residents and definitely not conducive to "rest in quiet surroundings". It is regrettable that such a large number of individuals should be exposed to this high level of noise pollution. Photos by JIM HABERMAN



Signs of the times.

This is the last pedestrian crossing for westbound traffic for 2½ miles.



The environment must allow the individual stable social relationships. What is true for the individual is true for the community. The recently opened second phase of the expressway has significantly disrupted the social structure of the University community. The campus has been partitioned to such an extent that student mobility and level of social intercourse has been hampered. For approximately two and a half miles, from Breese Terrace to Farley Avenue, the expressway is surrounded by a railroad track on one side and a cement wall and fence on the other. Absolutely no provisions have been made for pedestrian crossings, thusly isolating the Lake Shore dorm complex and numerous other buildings from the other side of University Avenue. For social and safety considerations a bridge or an underground walkway should be constructed. In the past there has been talk of such construction by planning officials, but none as of late.

During a September 1968 meeting of the University planning committee and highway planners, the "pedestrian problem" received two minutes worth of consideration. This consideration was of a most cursory sort, portraying pedestrians as unnecessary disrupters of the traffic flow. The planner went so far as to admit that this plan wasn't even designed to carry pedestrian traffic beyond 1972.

Whether this and other stupidity is due to the single -purpose structure of the traffic department or due to contempt for the University and students in general is questionable. It is probably a combination of both. But the University is a vital part of the greater community, and though most students lack monetary or political power, their needs should not be ignored.



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FEBRUARY, 1970

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The Other 1% -- The Woman Engineer

The female engineering student will ultimately comprise only 1% of the body count of the engineering profession. Considering the attention the female body receives when they are on the engineering campus, the following interview was an attempt to understand some viewpoints on their minority position in engineering and society in general

Wisconsin Engineer: Do you remember how you type of work he does. He thought it was a good became interested in engineering or what the deciding factor was in your decision to enter the field?

Lena: I became interested as a freshman in high school. That was the first time I really had considered it. Basically I was interested in math and sciences and I didn't want to go into any pure science or pure math because to become accomp- They wanted me to go into music or something lished in it you would have to go on to a Ph.D. level. Without a Ph. D. you could just be a teacher and I didn't want to teach.

WE: Sandy, when did you decide on engineering?

Sandy: I probably didn't go into engineering out of high school because I didn't know that much about it. After I started going to college, I started meeting more engineers and I got a little discouraged with math because everything comes down to abstract algebra which I don't find too applicable. So after I graduated in math in California, I transfered here to Madison in engineering. I chose engineering mechanics because it is most closely related to math and a good take-off point for other things.

WE: Did anyone influence the choice you made? Sandy: My father is not an engineer, but it's the

> Lena Stepaniuk is a junior in Nuclear Engineering from Milwaukee, Wisconsin. Her interest emphasis is in neutron activation analysis.



idea that I went into engineering. A greater influence was probably my boyfriend from California who was an EE.

WE: Did you meet with encouragement or discouragement from your families when you made your decision?

Lena: My parents were disappointed at first. that would be considered liberal arts.

WE: What reason did they give for not wanting you to go into engineering in favor of liberal arts?

Lena: Well, they prepared me in certain things like music with lessons when I was younger. I think they have the image of a girl as not going into a shop, let's say, and working with welding or something like this. But this is not the kind of engineering that I'm interested in. I'm interested in the application type that Sandy mentioned. However, my father has always stressed ability in math. He's always held math or science higher as something that alot of people do not get a grip on very easily, and maybe this kind of influenced me.

WE: Do you find that male students and faculty treat you differently because you are a woman?

Sandy: No, I don't thing they do. The faculty members, I know, definitely do not. I've worked for several mechanics professors, and they're very cooperative.

WE: What about the students?

Sandy: That's a little harder to tell, there's a little more variety. Alot of guys say they're glad to see you in there, but a couple have, more seriously, told me that they don't think girls should be in engineering.

Lena: Surprisingly enough, I think most faculty members in engineering are for girls going into engineering. They do not take sides as such, I'll say that much for them. In a classroom situation it's what you do as far as work is concerned. They're willing to help and they certainly don't try to discourage you as much as possible. I think they realize that it is a little harder for a girl to get in because guys in a class usually form cliques - they can help each other and discuss things. I had a guy as a lab partner who used to sit there and ask me

what I was doing in engineering. He said, "You should be staying home and scrubbing floors and having babies." This used to be a regular routine. He'd tell me how worthless women really are and that they should be doing menial tasks and serving men. Sometimes I wonder if he was really serious.

WE: I think I can safely say, then, that neither of you regret your choice of career?

Sandy: The only thing that I might regret is the choice of mechanics because alot of people don't know what mechanics is. And it's not something that has a direct application like ME or ChemE. And as far as looking for jobs, they don't immediately see where they can fit you in. The only thing that I can say is that it might be better to chose something that is a little more definite in the application.

WE: Have either of you been interviewing for jobs after graduation?

Sandy: Yes, I have been quite a bit.

WE: Do you feel that you are being discriminated against in hiring either openly or covertly because of the fact that you are a woman?

Sandy: Well, I think it gives them an excuse. They can go back on their history and say that women quit work and start raising a family. They can use this for an excuse for lack of interest in you. But I think that it is an invalid excuse. However, one thing that is good about engineering is that they do have considerably better summer job opportunities than L&S. I interviewed with the majority of companies that came here last year when I was looking for summer work and the only place I got an offer from was the city of Los Angeles. I worked there as a student engineer last summer. As far as interviewing goes this year, I'm not graduating but I am interviewing for a permanent position starting in June. I want to start working and going to school part-time to get an engineering degree. Again this semester, I do feel that my interviews have not been too beneficial. I've talked this over with Professor Marks at the Placement Center and he agrees that these interviewers do not like to hire women, and he has some statistics to back this with, I think. There was one girl, an ME, who graduated last year with a real high GPA and she got a really ridiculous offer. And anyway, in the type of jobs that engineers usually take, the turnover is usually quite a bit in the beginning of their careers. Most of the engineers won't stay in a job more than a couple of years. Considering this turnover, the question of whether a woman is going to quit in four years or not shouldn't be relevant. I hope that my interviews this semester will turn out better because I have to get a job in June.

Lena: In lots of the interviews I come right out and say, "How many women engineers do you have working for you?" And most of them do have some; most of them will admit that it does work FEBRUARY, 1970



Sandy Houck, with a B.S. in math behind her, is a senior in Engineering Mechanics from Lafayette, California. She works part-time as a user consultant at the U. W. Computer Center.

out OK.

Sandy: Over break, I was out in California interviewing and the only real hesitancy they seemed to indicate was women working out in the field — they'd have to wear the hard hats and maybe the work clothes a little bit. But at least one man did indicate to me that if a woman wanted to work there he saw no reason why he shouldn't let her. But whether he would, of course, is another thing. However, I must say now that I think my opportunities as an engineering major are much better than they were as a math major.

WE: Are you concerned about salaries – do you think you might be forced to work for lower wages than men doing the same work?

Lena: I don't think it's going to be such a big problem for me. I don't think there's an excess of nuclear engineers as yet. I plan on going on to graduate school, getting a master's degree, but going into radiology. Even if I do have a smaller salary, I don't think any employer, if he can see that the person is doing the work, will stop that person from progressing in the company. It may be a little harder, but it's what you prove when you finally get to the company that counts.

WE: Do you really think that's true? There are employers who are going to feel differently about a woman as an employee.

Lena: That's true, but I think there's a movement going on in companies to make it more plausible for a woman to work and raise a family. My brother advises me quite a bit to what's going on and he says that even in his company they do make allowances for women. If they do want to raise a family they can take a leave. The important thing is telling the company truthfully what your plans for the future are when you come to the company. For instance, you can take four or five years off and perhaps take some courses to keep up with the field, so when you come back you'll have a position.

WE: Do you think that there will be any problem working with men, in other words, do you think sex roles might interfere with cooperation in your job?

Sandy: I don't think it's any problem. In the job I have now, I work with all guys and there's been absolutely no problem.

Lena: I don't think it will cause more of a problem than just exists between people. I mean you will come against cases where people will dislike you automatically without your even having said anything.

Sandy: It's mostly just joking.

WE: Lena, since you became engaged recently, can you tell me if you plan to continue your career after you're married?

Lena: Definitely.

WE: Do you think your husband will be willing to share the housework when you are working?

Lena: He's already agreed to it. As long as I'm working I don't see why there should be just this one woman to a household, stay-at-home, maid type thing. I would become completely bored staying at home twenty-four hours a day.

Sandy: I find that one of the biggest problems is the attitude of women, rather than that of men.

Lena: This is true. I've been more discouraged by my girl friends than I have been by any men. They come here maybe to enjoy other things, let's say, than getting a college education. Maybe their philosophy is right – sometimes I wonder if I'm getting everything I should out of this place. Perhaps all the time that you have to put in on classes is cutting down on your social activities. I know now if I were to go back, I would seriously consider giving it a second thought. I probably wouldn't change any of my moves. I know that I for one will discourage girls from going into engineering. I want them to seriously consider what they're doing, what it's going to mean to them to get through school, and what they're planning on doing for the future. I don't think you can just go into engineering and say, well, we'll see what happens tomorrow.

Sandy: Of course, that's the attitude of the vast majority of incoming freshman anyway.

Lena: It needs alot of forethought. I think maybe the reason some of these girls act this way, like "What are you doing in there? Do you really think it's worth it?", I think perhaps they're afraid to go into it themselves. It's just a cover-up. And I'm really surprised at the number of people, especially on the Hill, that say they hate science or they hate math. They try to get by with the easiest science and math courses that they possibly can, just to squeeze by. And it's not that it's scary. I think they're scared by the name on the cover and they never really open up the book and see what it's really about.

WE: What do you personally think is the reason for the extremely small number of women in the professions and in engineering specifically?

Lena: Well, engineering has never been a glorified field. When you think of doctors and lawyers, you think of a little more glamour.

Sandy: Traditionally, there hasn't been that much reason to put alot of effort into it.

WE: How do you feel about the movement for women's liberation and your place in it as a woman in engineering?

Sandy: I agree with it and as far as my position goes, I feel it's an influence trying to influence others around me that women aren't emotional scatter-brains.

Lena: It's still got a long way to go. As far as the effects it will have on the future, I hope it will bring about a little more equality. I hope men, when they get married, will not have to keep their women down to build themselves up again. It gets to the point where you almost convince yourself that maybe they're right, maybe you shouldn't try this, maybe they do know better, but then you think, well, there's no reason.

Sandy: Something that's kind of built in underneath us is the attitude of what an engineer looks like. The traditional view of engineering is construction type work.

WE: Why don't we talk, then, about the misconceptions that people have about women in engineering.

Lena: If girls are capable of going into math or science, they're just as capable of going into engineering, and it may be more rewarding, more fulfilling to them. There are different types of engineering jobs; you don't have to have a plant job, you don't have to repair machines or things like that. There are just as many things that deal just with theory if you want. Or you can just as easily have a desk job, or go into business as a related field, or into medicine as I'm planning to do, working on cancer research.

WE: Sandy, do you know specifically what kind of work you'll be doing?

Sandy: The type of work I do now is with computing, so that's kind of dictated what I will be doing as far as a job goes. But I have been looking for work in computing with engineering applications, which for some people may not be far from a computor science major. I can see alot of areas that can be used, alot of engineering problems.

Lena: First of all, there's the bridge between the sciences and engineering, for instance bio-engineering. You can have government work, it gives you opportunities for travel abroad, you can even do technical writing.

Sandy: Almost any science field has a relation to engineering. [***]

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Which discipline will Ed Whitaker use tomorrow

When Delco says multi-disciplinarian, they mean it. Just ask Ed Whitaker. And the solid professionals who have helped him grow into jobs like developing the microcircuits for a fire and overheat detection computer for jet aircraft. Twenty-five hundred components in a package 4" x 2" x $\frac{1}{2}$ ". From concept to hardware in eight months flat. And then a fast hop to Air Force testing. From beginning to final delivery, Ed was a full member of the team. The question is . . . does your job permit you this kind of growth? Take a good look at how your career shapes up, compared with Ed Whitaker's and his colleagues at Delco. You might even call us collect. Or, write: Mr. C. D. Longshore, Supervisor, Salaried Employment, Dept. 600, Delco Radio Division of General Motors, Kokomo, Indiana.



AN EQUAL OPPORTUNITY EMPLOYER DIVISION OF GENERAL MOTORS KOKOMO, INDIANA

That's sort of like asking why a banker goes to work in a bank.

A guy goes to work where the best work is. And some of the best engineering work around today is in and around factories.

What would you say to designing the numerical control system for an automated steel mill?

Or developing quality control procedures for the world's most powerful airplane engine?

Or managing a production team responsible for delivering power generation equipment to utility customers?

And what would you say to a General Electric program that puts you right to work on jobs like those?

We figure if you're ready for our Manufacturing Management Program, you're ready for that kind of responsibility. Right from the start.

So our program packs about ten years of manufacturing experience into about three years of work. And the work will take you all around the country.

Ask GE's top management people what they thought about starting out in a factory. Many will tell you it was the best decision they could have made.

And where will you find those managers today? Running our factories, of course.



AN EQUAL OPPORTUNITY EMPLOYER



But there is plenty wrong behind those gates!

We need people with 1) the perception to recognize the necessity for change

AND 2) the inventiveness to design the changes

AND 3) the ability to sell those changes to managers who have to be sold on them

This is the credo of the "industrial engineer." Some come with that label right out of college, eager for details. Others are mechanical or chemical engineers who had scarcely heard of "industrial engineering" on campus but have discovered in themselves a stronger interest in the consequences of engineering than in building a reputation on gearing, heat flow, reaction rates, etc.

On the whole, our balance sheets indicate those plants are not in too bad shape. In part, this can be attributed to good industrial engineering over the years. We do have a little trouble keeping all of our industrial engineers in industrial engineering. The departments they sell on change keep trying to steal them and push them up ladders. Sometimes they succeed.

This makes it necessary for us to invite you to indicate an interest in industrial engineering to

