

# BRIDGE

February '77

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79

Mars





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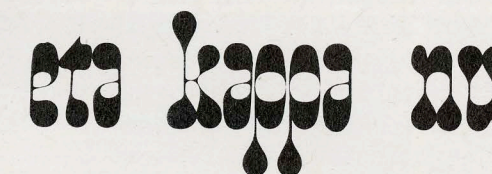
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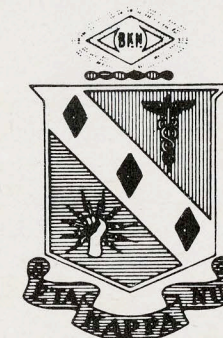
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**Electrical Engineering Honor Society**

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### OUR COVER

*Photo of Mars taken by Viking 2, before landing. See story on Page 31.*

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**Member Association of College Honor Societies**



# NEW YORK REGIONAL

by Quane Gennaro  
National Director

On Saturday, November 15, the New York Alumni Chapter welcomed representatives from nine area College Chapters and from three Alumni Chapters to a Regional Visitation of Eta Kappa Nu. This year's Visitation featured a *Career Clinic* which offered tips on job-seeking, resume writing and taking interviews. The program stressed an aggressive approach to job-hunting in a no growth economic environment and offered candid answers to questions one dares not ask the College Placement Coordinator. The first part of the program was based on material compiled by the American Institute of Aeronautics and Astronautics and by the Institute of Electrical and Electronics Engineers. The second part of the program presented a slide presentation developed by Larry Dwon of the American Electric Power Corporation.

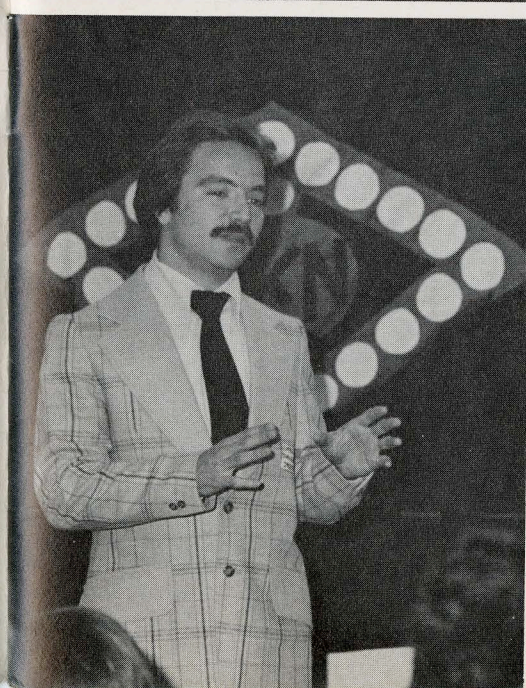
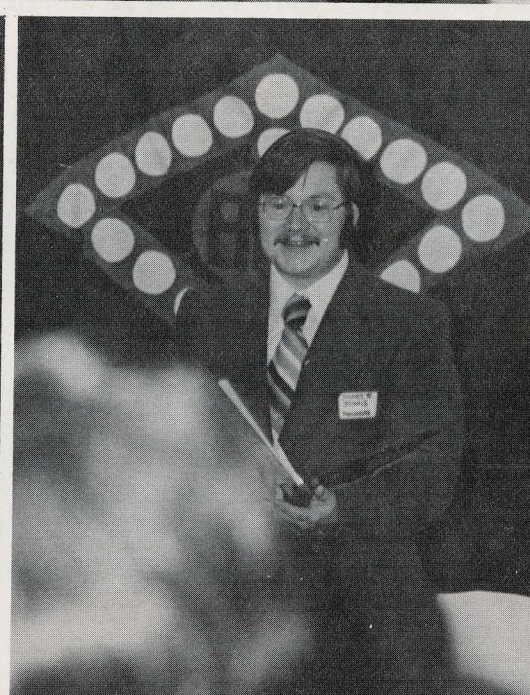
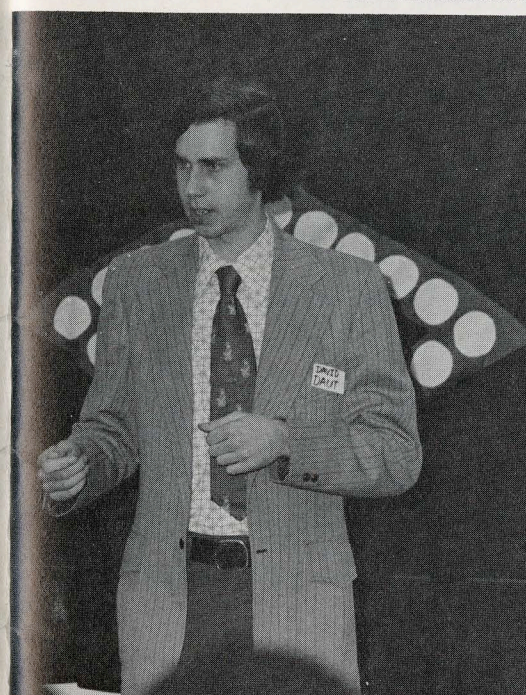
The Regional Visitation was held at Pratt Institute in Brooklyn, New York. Special thanks is due to Prof. Arthur Seidman who made the on-site preparations and to the students of Pratt who prepared and served a buffet luncheon for the guest chapters.

Chapters represented at the Visitation were: City College of New York, Cooper Union, Drexel University, Manhattan College, Monmouth College, New Jersey Institute of Technology, Pratt Institute, Polytechnic of New York (merged with the New York University department of electrical engineering), Rutgers University, the American Electric Power Alumni Chapter (first corporate alumni chapter formed in 1975), the Philadelphia Alumni Chapter, and the New York Alumni Chapter. Unable to attend was the Columbia University Chapter.

This year's program was so successful that a similar program is planned for the 1976 Regional Visitation to be held on Saturday, November 13, 1976. The 1976 Program will feature speakers from the technical recruiting staff on IBM.

In addition to the *Career Clinic*, reports on the activities of the Board of Directors, the various College Chapters and the Alumni Chapters were given by their representatives. There was also a very constructive exchange of information between the chapters and members in industry.

**IDENTIFICATION:** First Column: Barbara Zeman, President, Rutgers Chapter; Gabriel Paoletti, President, Drexel Chapter; David Daut, New Jersey Inst. of Tech. Second Column: Richard Bernhardt, President, Cooper Union Chapter; James R. Johns, Monmouth College; Edward Lewis, Vice President, Manhattan College Chapter. Quayne Gennaro, National Director and Visitation Officer; John O'Brien, Vice President, Polytechnic Inst. of N.Y.; Prof. Isadore Cogan, Philadelphia Alumni Chapter and Visitation Officer.

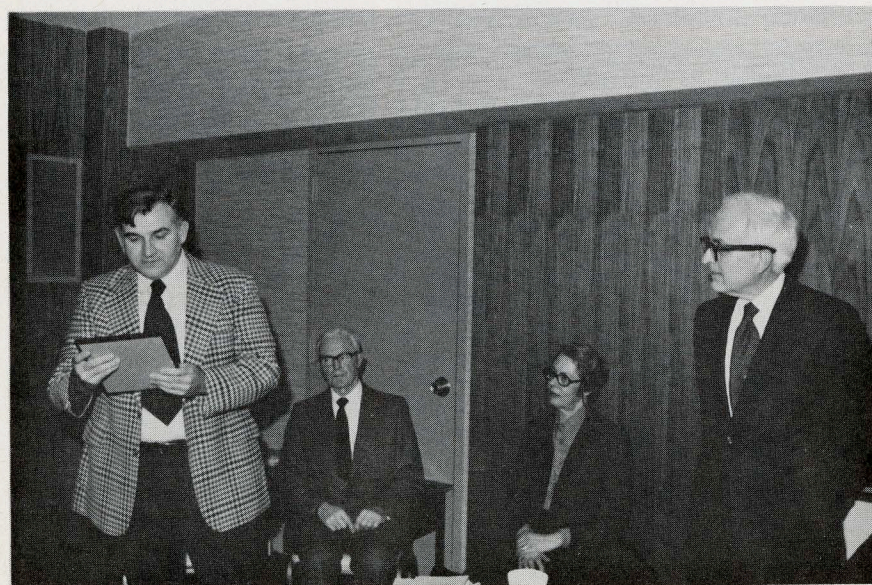




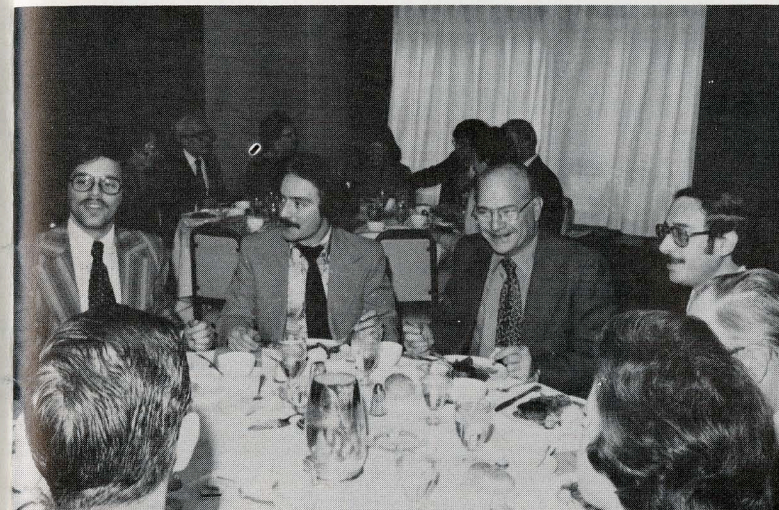
# AWARD LUNCHEON

by HOWARD SHEPPARD

The National Board of Directors were hosts at an Award Luncheon held in the New York Hilton Hotel, on January 25th. Mr. Larry Dwon, Director of Engineering Manpower for the American Electric Power Service Corporation and Past President of Eta Kappa Nu was presented with the Distinguished Service Award of the Association. Dr. Bruce A. Eisenstein, Assistant Professor of Electrical Engineering at Drexel University was presented the Outstanding Electrical Engineering Professor Award. The award is sponsored by the Philadelphia Alumni Chapter but the nominations are made by the College Chapters. The selections were not made in time to extend invitations to the Honorable Mention winners and they will be honored at a later date. They are: Professor P. David Fisher, Associate Professor of Electrical Engineering, Michigan State University, Professor Keith R. Carver, Associate Professor of Electrical Engineering, New Mexico State University, and Professor Lee T. Todd, Assistant Professor of Electrical Engineering, University of Kentucky.



Chalmers Butler [left] President of Eta Kappa Nu, presents the Distinguished Service Award to Larry Dwon.





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## OUTSTANDING CHAPTERS

by ALAN LEFKOW  
Committee Chairman

The Chapter Award Committee was pleased to announce that the winners in the 38th Annual Outstanding Chapter Awards competition were:

**National Winner**  
Gamma Chi Chapter,  
New Mexico State University

**Honorable Mention**  
Omega Chapter,  
Oklahoma State University  
Xi Chapter, Auburn University

These well-deserving chapters have been presented with engraved Award plaques in recognition of their exemplary programs for the 1974-1975 academic year.

Eta Kappa Nu not only recognizes excellence in individual performance through acceptance into the organization initially, but also recognizes the performance of individuals working in concert as a college chapter. The role of the Chapter Award Committee is to decide which chapters, if any, have met the high levels of performance that have formed the basis for recognition as an Outstanding Chapter.

The vehicle for this determination is the chapter's annual report to National. At the conclusion of each academic year each chapter is asked to submit a report that describes as faithfully and completely as possible its programs and activities for the past year. Each report becomes an entry into the competition and forms the basis for judging the chapter.

As can be expected, not all chap-

ters submit a report, or, more importantly, submit one that does justice to the chapter. As a result, many otherwise well-deserving active chapters fail to obtain this special recognition because the Committee, obviously, can only judge from among those reports it has received. However, the Award is not automatically given each year. To be a National winner a chapter must not only stand out from its peers, but must also meet the established high standards of a National winning chapter. However, except for 1963-64 when a regional but no National winner was declared, there has been a National Outstanding Chapter Award winner in each year of the competition. When one looks at the large amount of student apathy so prevalent on campus today, it's significant to note that there has not been any corresponding interruption in the Award.

Generally, annual report preparation is left in the hands of the outgoing and new incoming chapter officers at the year's end. Ideally, their only job should be one of editing. Committee and activity chairmen should write a report of their activities immediately after their conclusion for eventual inclusion in the annual report. Copies of previously submitted reports should be kept on hand as guides for next year's report. Typically, the report is due about six months after the academic year's end (e.g., November 30th), which, in the Committee's view, should allow sufficient time for all those involved to complete it.

Although the report should cover all programs and accomplishments of the chapter, the Committee places greatest weight on activities of service to the chapter's department, school and community. While many activities by and for the chapter itself are important, they are, for the most part, internal affairs necessary in fulfilling basic chartered responsibilities as an HKN chapter. It's those activities beyond the basic running and perpetuation of the chapter that are more important when comparing chapters. And it is this outstanding and unselfish service to others that the Award Committee has always found prevalent in the winning chapters each year.

Because the report must substitute as a complete picture of the chapter, other aspects are also important. Good, clear writing is naturally an essential ingredient for a top-notch report. The contents should be well organized, logically presented, and neat in appearance. Photos and samples of work are also desirable assets. All told, the Committee considers all factors, weighing each one appropriately in deciding the winners.

From its traditions and long list of honorable winners, the Award Committee considers winning the Outstanding Chapter Award a prestigious accomplishment. The Committee hopes that each chapter will take the time and trouble to submit a worthwhile entry in the next Award competition, and wishes each success in carrying out their year's program.



# THE DEATH OF CAPTAIN CHARON

by Miggs Pomeroy

The women composed no dirge for his funeral. He seemed to have no close relatives, and from the taciturn villagers one could elicit only vague and conflicting stories — some said he had slit a dozen throats in the civil war which ravaged Greece in the 1940's, others that he had killed no one but was nicknamed Charon (or sometimes Captain Death, for Charon, ferryman of the Styx, is death's emissary in these parts) because he had been condemned to death so many times himself. He spent twenty years in jail for his left-wing views, and was said to have risked his life to save escaped allied prisoners during the German occupation of Greece. He looked like a pirate and always wore the same pair of patched blue trousers, rolled up to the knee as though he were just about to push a boat off, though he never went out fishing like the other old men of the village. Those who knew him said he was a gently, kindly man, and the planed, ascetic lines of his handsome face, embellished with a huge cavalry moustache, would break into a smile of unusual sweetness when he met a friend. Recently he spent his days sitting with his cronies in the *cafeneion*, in the deep shade of a mulberry tree, a glass of ouzo handy, his bare feet propped up on the railing. Perhaps he never tired of looking at the sea lapping at the perfect crescent of white sandy beach in front of him, the fishermen baiting their lines at the jetty, a

string of donkeys being led off to water at the spring under the cypresses, or up, a mile or so behind the olive groves above the village, to the mountains where he had hidden and fought. They were almost as changeable as the sea itself — snow-covered in winter, dappled with sun and cloud or ablaze with wild flowers in the spring, and every evening at sunset baring their stony flanks to an orgy of pink and purple. He would also see the red gashes of soil where new roads have been cut to the villages high up the mountain, and the other which winds around the peninsula, opening up his spectacular part of Greece to the outside world.

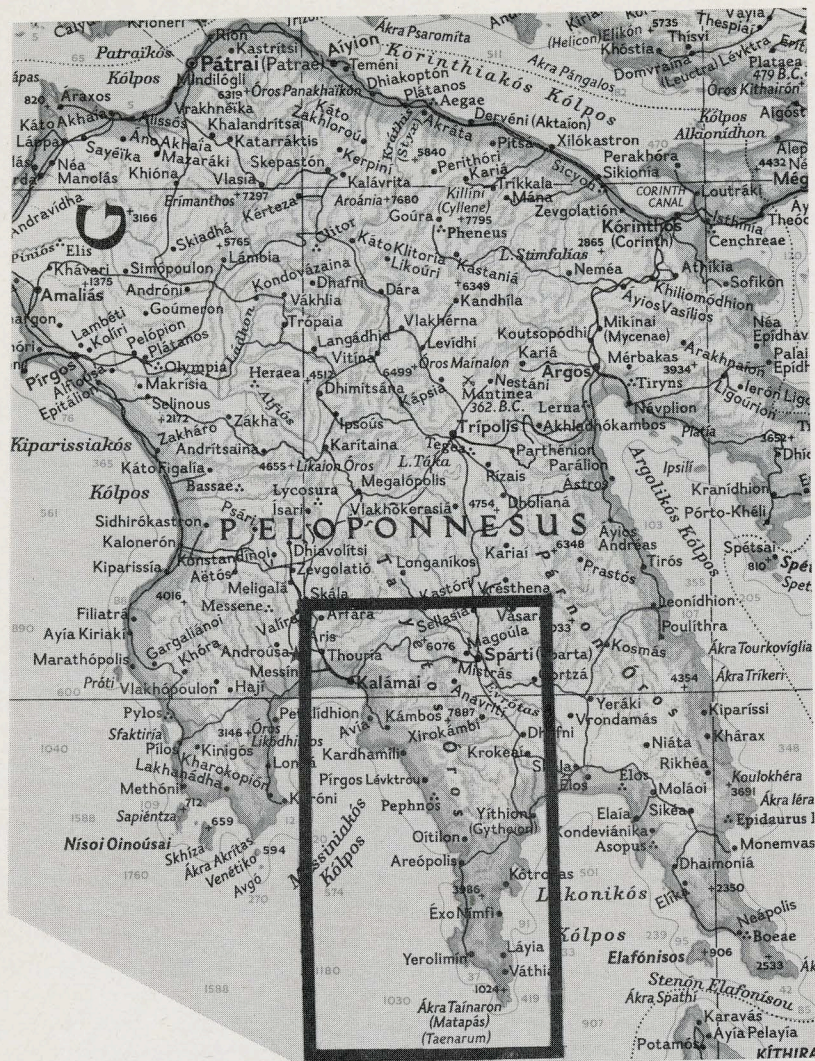
The Peloponnese is about the size of Massachusetts, a varied land of flat fields bright with pumpkins and tomatoes, olive groves and vineyards, or rolling pastures patched with clumps of pine and cypress, and mountains. It is surrounded by a clean, though overfished, sea, reached by relatively uncluttered beaches or dramatic rocky coves ideal for mask and snorkel. There is no lack of classical sites: the palace of King Nestor who fought in the siege of Troy, the temple at Bassaie, the Byzantine town of Mistra or the Venetian fort at Methune. The lovely ruins of Olympia, encroached by pines, emanate a joy which surely was born of the time when the Games lived up to their name. At the northeast corner Nero's

brainchild, the Corinth Canal, snips the Peloponnese off from the rest of Greece, and at the southern tip of the central finger of land at Cape Matapan (in ancient times Tainarus) is the entrance to Hades. This peninsula, the Mani, with its 8,000-foot backbone of the Taygetus mountains bred Captain Charon. These Maniots are a tough, independent tribe of men for whom the mountains were once a barrier against culture or Spartan invasion from the north and a refuge from seaborne marauders, whether they were Turks, Venetians, or pirates. The road is changing the land and the people, bringing amenities, visitors, and cultural pollution: Captain Charon's village, until recently a harmonious group of stone houses roofed with handmade tiles, has been marred by its first two-floor balconied apartment block which looks like a kitchen cupboard with the drawers left open. Hotels are being planned. To us it seemed as though the death of this man who epitomized the originality of this part of Greece was an omen of change and standardization to come and each year we wonder if we can bear to go back. Each year we do and it is almost, but not quite, as beautiful as before.

Kalamata, the provincial capital at the head of the bay and the base of the peninsula, can harbor big ships. There are good shops, hotels, campsites and beaches, and a frequent air service to Athens.







In the old days before the road the Maniots would come here in their fishing boats if they needed a hospital, lawyer or something special for the house. Now they travel by bus — an erratic, devil-may-care service which bowls along the narrow mountain roads like a rhinoceros on a tightrope. There is one spot along the way where the driver will sometimes stop (as though his passengers needed any sobering lesson) to show them a hundred-foot chasm with a bundle of rags and scraps of metal at the bottom — all that remains of a small family car. Having made his already queasy passengers faint with compassion and vertigo, he tells them that the only casualty was one broken arm and a few scratches. Perhaps the driver of that car was distracted by the scenery. We felt we could hardly blame him — the backdrop of burnt-out mountains, here and

there spilling red earth at the lips of a crazily inaccessible cave shelter, green-black rivers of cypress in the gulleys, crumbling forts approached by winding stone stairs like flounces of pleated ribbon in the distance. Gargantuan rocks teeter on hillsides crackling with spiny plants, fat grasshoppers and cicadas, and a goat with a brass bell tinkling on her wooden collar shelters under a gnarled olive apparently rooted in granite. Not far from where the car smashed, the road crosses a deep ravine. Under the modern cement bridge is the lovely single arch of an old stone one and the remnants of one of the many original Mani roads built for travelling on foot or with donkeys — no more than pathways of stone fashioned in the steeper places into shallow sloping steps. Even in winter there is seldom water in the ravine now, but oleander sprouts through the

polished, sun-bleached stones of the old river bed. It is scorchingly hot in the ravine in the summer except where the old river turns seemingly to escape the sun or is narrow enough to shut it out altogether. Down here, in a cave where many a goatherd must have snoozed away the afternoons, we found the fragile remains of a human skull.

One form of greeting in the Mani is to say 'Where is Alexander the Great?' to which the reply is 'He lives and reigns'. Children are sung a lullaby about how Constantinople will be recaptured from the infidel Turk. Their heritage is a warlike one, and the proud spirit is still there, revealing itself in refreshing ways. We once asked a Greek friend what the army was like these days and he laughed, surprised at such a question. 'It is wonderful', he said. 'Naturally — it is full of Greeks!' Young American friends who decided to have their baby in Kalamata were surprised when the doctor in attendance wore no face mask and asked him tentatively what he thought about the risk of germs hurting the new-born. 'Germs?' said the doctor, 'We have no germs in Greece!' As soon as the child was born, his mother was told to get up from the delivery table — she could go home now, said the doctor. She walked out, past a row of pregnant women who would one day be expected to do the same. 'I didn't think I'd make it', she said, 'but I just had to, and I found I could.' Once, to survive in this harsh and impoverished land, a woman had to be tough, and much is expected of her still. In the villages they are at work early until late — in the house or in the fields, planting, digging, carrying, baking, sewing and minding the children. When the weather is hot they put on their wide-brimmed straw hats and bathing suits and go for a dip before lunch. They gather in clusters, chattering and bobbing, the sea up to their necks, their hats like honey-colored lilies in the turquoise water. In the winter, especially after Christmas when it can be rainy and cold and their men are getting up a frowst down at the *cafeneion*, playing

chess and backgammon or fiddling with their worry beads, the women would like a fireplace to huddle over, but there is probably none — in Captain Charon's village the only two chimneys poking out of the golden tiles have been built by foreigners.

Bananas and oranges grow in this sheltered climate, the juiciest figs, and cucumbers two feet long. Vegetable gardens are planted in the shade of the olives, mulberry and pomegranate trees. There are places where underground rivers run down through the limestone soil of the mountains, and here there is enough water for village wells. Some of the water escapes to the sea and bubbles out fifty yards or so from the shore, making sinister-looking slicks on the surface and icy currents to swim through as one peers apprehensively down into the shimmering grey-green caverns. One river springs out in a rock-pool so close to the sea that you can't believe it can be so sweet to drink, and cold enough to chill your beer or watermelon. To this place, a tiny bay with milky sand, eucalyptus shade and the splattered pinks and reds of oleander blooms, Kazantzakis, author of 'Zorba the Greek' came to ponder and to write and from here he could see the lignite mine he would describe in the book.

Unless it is to keep out the wind or the sun, and perhaps in the summer when strangers come, the front doors of village houses are not locked; even a band of gypsies is treated with kindness and offered clothing or olive oil. There was a time, though, when these coastal dwellers had to be on the look-out for pirates. Many chose to retreat higher up the mountain where they built their villages near a spring or a patch of ground flat enough for cultivation. In many of these villages there are tiny churches, beautifully frescoed with primitive, almond-eyed figures. It is sad that much of this work is being destroyed by dampness in the walls which has caused chunks of plaster to fall off or blotched it with mould. At Pirgo, about twelve kilometers south of Kardamyli, if you ask they will get the key and show you one that is so



Miggs Pomeroy

low that you must crouch down to get through the door. The people up here are pleased to welcome strangers; they are far above the main stream of activity along the coast, and apart from an occasional visiting relative from Athens or Detroit, they don't see many outsiders. For the most part there are only the very old and very young left — the view may be breathtaking but the land is too poor to provide a livelihood, though it has been worked with incredible industry; the rocky mountainsides are ribbed with narrow terraces, their walls sometimes not more than a yard apart from each other, to hold every particle of earth and drop of water for grain or goat-pasture. On one mountain hike we met a group of men, women, children and donkeys on their way to repair the roof of a ruined monastery more than an hour's walk into the mountains from their village. They would have been amazed if they'd known how sorry we were that they intended to patch the

crumbling stonework of the chapel with cement. But who, except the outsiders like ourselves, was there to notice — certainly not the revellers who would come to the annual religious feast in September, bringing the monastery back to life and making the old walls vibrate with the laughter and dancing and bouzouki music. Just above the monastery, along a path littered with chunks of green marble, we came to a spring shaded by figs and huge black arrows of cypress, and here the builders shared their picnic with us — fresh goat cheese, black olives, home-made bread and resinated wine. It was summer and the flowers had withered, but the air was redolent of thyme and oregano and the other herbs from which the people make their own brew of tea. It was hard to realise that just two hours' climb above this place was a different world of timber, moss and bracken, and cool wisps of cloud.

Back at the village *cafeneion*, shaded by an arbor of ripening



grapes and purple cascades of bougainvillea, one would like to be able to paint or draw; a fat old priest in the cassock and tall black hat of Orthodoxy, his profusely bearded face pale under the shade of a dusty black umbrella, rides by on a tiny tottering donkey. He contrasts with the whitewash — houses, walls, cement paths, pots of basil and geraniums — even the trunks of the scarlet hibiscus trees have been sprayed with it. With eyes squinting against the brightness and the background hum of people chattering in a language one only vaguely understands — they may be discussing detergents but one drowsily lets illusion make them talk of pirates or nymphs or the gods — this feels like the land of the lotus-eaters where it is always afternoon. This too is an illusion in this land which has been ploughed and planted and husbanded. Facing reality more squarely one sees that over the years whatever controls on grazing there are have come too late; the goats have nibbled away too long at the roots which held the soil on the hillsides. Only the olive crop flourishes and in the wintertime the cafeneion life comes to a halt as the habitués go out to pick. The sea, so lovely to swim in, has been so overfished that after three or four hours out the boats usually come back with nothing but small fish weighing not more than half a pound.

Going on south towards the tip of the peninsula the mountains become even more arid, though there are a few patches of oaks, and gardens wherever there's water. Apart from an occasional goat, donkey, pig or chickens, the people here seem to have nothing. There is practically no soil, water or shade. Dark-skinned faces are blackened by the sun, the women are swathed in the dusty black of permanent mourning, and ragged, crew-cut children skitter over the rocky paths as furtively as the lizards. Many of the houses look as though they have been hit by an earthquake, and from the high cliffs the sea looks deeper, darker and vaguely menacing. The landscape has a sombre beauty and is dramatically punctuated by villages which are built entirely of

towers. According to Leigh Fermor's book 'Mani' these towers were built by refugees from Tripoli in the central Peleponnese. They set up a militaristic feudal aristocracy in this barren land, and fought with their neighbours over space and grazing and whose tower would be tallest. No cosy, pergola-shaded cottages these, but grimly handsome shafts of stone, cut as though the sides of the mountains themselves had been geometrically clipped and pruned. Many of these towers are now abandoned, empty shells in rock gardens of prickly pear, a testimony to struggle and swagger, some of it perhaps five hundred years old, much of it as late as the nineteenth century.

At Pirgos Dirou, about half way down the western coast of the peninsula, there are a number of limestone caverns, some of which ticketholders may visit by boat, complete with piped music and concealed lighting, but these hills are riddled with other unspoiled caves for the adventurous to discover and explore on his own. There is one, where kindly villagers hid British soldiers during the war, in which the tunnels are so low that you have to bend double — and who knows how deeply they penetrate into the mountain; after a while, even with flashlights and candles, the heart quails. Like Ariadne leading Theseus out of the Cretan labyrinth, one should have a long string. Not far from this place was a headland dotted with fragments of flint arrowheads, and here we found a beautifully shaped obsidian blade. Now the goats which kept the spiny undergrowth in trim have been sold and it has taken over, hiding perhaps forever the arrows which went wide after boar or bear, or the fragments which were discarded by those ancient craftsmen. Or will they be turned over by a bulldozer laying the foundation for a new hotel? Captain Charon would probably not have minded. The last time we saw the old warrior he was at his usual place at the cafeneion with a couple of other septuagenarians, passing a pair of binoculars back and forth. They were zeroing in on the first topless tourist as she frolicked in the water across the bay.

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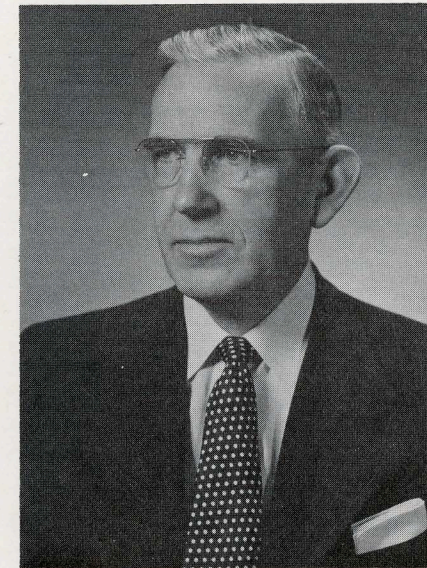
## Aims and Ideals of ...

# THE HONOR SOCIETY

The origin of the honor society movement dates back to 1776. Therefore, it is peculiarly significant to mention this historic event in this our current bicentennial year. The mother of all honor societies, Phi Beta Kappa, was not originally conceived as an honor society in the sense we now use that designation. Its original purposes included literary exercises, such as composition and debating. Fraternal sentiments were fostered and social meetings were held. Actually in its early years the organization acquired some of the characteristics we now associate with the typical collegiate social fraternity.

As time passed Phi Beta Kappa tended more and more to lose its social characteristics and to become what is presently called an "honor society." Meetings were held infrequently for the reception of new members, often with public exercises and a scholarly address. After a century the organization became more clearly recognized as an honor society functioning in the colleges of the liberal arts.

In the 1800's the collegiate social fraternities began to be organized and in the late 1870's professional societies for students in colleges and universities began to function. Then near the end of the nineteenth century several honor societies in the broad fields of education other than the liberal arts were developed. We now refer to these as general honor societies, typical examples being Phi Kappa Phi in



by Marsh W. White

all academic fields and Tau Beta Pi in the various areas of Engineering.

In the early years of the 20th century needs were felt for the establishment of honor societies that could grant membership based on scholastic achievement in more specialized fields. In the years 1910-1930 many of these societies were organized to serve the needs of students in the individual collegiate disciplines. Also in these years societies were founded to recognize scholarship of freshmen.

Another type of honor society were those that were organized to receive into membership junior and senior students who have a combination of high scholarship and also demonstrated leadership qualifications.

The growing multiplicity of or-

ganizations referred to as "honor societies" became a source of concern to a number of the established honor societies. It had become obvious that many of these organizations did not have sufficiently high scholastic standards for admission to be classified with the conventional honor society group. Furthermore, some of their practices were objectionable from an ethical point of view.

As a result of these circumstances leaders in six of the well established and highly regarded honor societies agreed that it would be helpful to form an organization of these societies. These considerations culminated in the founding of the Association of College Honor Societies on October 2, 1925. It is worthwhile to repeat here the original, and still current, objectives of this Association, namely "to consider problems of mutual interest such as those arising from the confusion prevailing on college campuses concerning the character, function, standards of membership, multiplicity, and undesirable duplication of honor societies; to recommend action leading to appropriate classification, higher standards, reasonable cost of membership, consolidation or elimination; and to promote the highest interests of honor societies."

The growth of the ACHS at first was very slow. During the 20 years following its founding only six additional societies were admitted into the Association. Some of these were approved only after extended



debates and differences of opinion.

As a result of some of these and other discussions in the 1935-1945 period a quiet movement was organized by several "interfraternity" groups to promote improved conditions within some of these student organizations. A cooperative group, first known as the National Committee on College Fraternities and Societies, experimentally functioned in the 1940's. This group was responsible for the definitions now endorsed by the ACHS whereby college social fraternities, professional fraternities, honor societies, and recognition organizations were clearly specified. These definitions have been promoted by the ACHS and included in some of the interfraternity publications. Unfortunately the implications of some of these definitions have not been universally implemented, especially in the areas of the recognition societies.

In 1944 the officers of the ACHS, Josiah J. Moore, Robert W. Bishop, and Lawrence R. Guild interested themselves in making diplomatic approaches toward membership in the ACHS by a few of the highly recognized honor societies that were functioning in the specialized scholastic areas. As a result three of these societies were selected for admission into membership at the 1945 Council meeting. These societies were Alpha Epsilon Delta (Pre-medicine), Phi Alpha Theta (History) and Sigma Pi Sigma (Physics). The addition of these societies resulted in a period of additional leadership and great growth in the number of organizations in the ACHS. It seems fair to declare that the admission of the specialized honor societies has accelerated the bringing into the ACHS the strength and vigor that has developed the Association into its present high status.

It now becomes desirable to consider some rather sad events in the history of the ACHS. Some of the leading persons who were founders of the Association almost certainly visualized the constituent members as including only the most prestigious of the general honor societies. As other societies were admitted, such as the leadership

and specialized societies, and especially the societies for freshmen, the interest of these older members declined. Furthermore the differences of opinion concerning admission policies and personality conflicts mounted until several of the leading founder societies resigned their membership in the Association.

The exact dates for the withdrawal of Phi Beta Kappa and Sigma Xi are not known to me, but they probably were in the years 1937-1940. Other strong societies withdrew at later dates, such as the Order of the Coif (law) in 1950, Beta Gamma Sigma (Business Administration) in 1962 and Alpha Omega Alpha (Medicine) around 1965. For various reasons three other societies have resigned from membership in the ACHS. In a number of these cases it probably is true that their resignations were motivated by their indifference and failure to appoint delegates to the annual Council meetings. Ostensible reasons such as the costs of membership and the lack of evidence of the values of membership seem to be only the excuses and not the real reasons for some resignations. In a few cases the admission into ACHS of competing (and presumed lesser) societies were the real reasons for leaving.

Growth of membership of societies in the ACHS since 1969 has been small; five societies have been admitted and two have resigned from membership. However there is still considerable potential for the admission of more societies into the Association. Since the organization of the Association 11 member societies have withdrawn; surely some of them could again be brought back into the ACHS. There are about 10 additional societies that are well recognized as qualified for membership in our Association. Determined efforts on the part of the existing members of the Association should result in obtaining petitions for admission from some of these groups. There are perhaps 20 other so-called honor societies that might have their organizations improved until they would become logical candidates for possible admission into the ACHS.

We should mercifully ignore some other 150 student organizations that are frequently referred to as "honorarys." It is highly desirable that this designation should be replaced by the more appropriate term "recognition society."

Every alert member who is familiar with the current honor society movement should be concerned about a number of problems that are hindering the success of our efforts. We must confess our inability to recruit and attract capable officer material to staff our central organizations. An alarmingly small number of our member societies have the financial resources, or the ability to develop them, that would enable their headquarters offices to engage professional staffs and to become equipped with modern office machinery. The solicitation of contributions from alumni members, the collection of realistic entrance fees and dues and the assistance from appropriate professional societies and foundations are problems that few of the ACHS societies are attacking and solving.

The Council of the ACHS is to be commended for the studies it has fostered in recent years concerning the various difficulties that seem to be increasing among our societies. With determined effort and farsighted planning, we could be sincerely confident that our Association and its member societies can continue to develop and to serve the needs of our high scholarship student members.

We wouldn't worry so much about what people think of us, if we knew how rarely they do.

\* \* \* \*

The nice thing about money is that it never clashes with anything you're wearing.

\* \* \* \*

Agent to taxpayer: "I'm afraid we can't let you deduct last year's tax as a bad investment."

# Theta Alpha at ... TULANE UNIVERSITY

by Gretchen Hock

The newly installed Theta Alpha Chapter of Eta Kappa Nu at Tulane University experienced historic New Orleans, March 13, 1976, after its induction ceremony in the Marriott Hotel. The ceremony was held in a banquet room with a balcony overlooking the famous Mardi Gras Ballroom. It was a busy Saturday night in the French Quarter and some of the participants were slightly delayed by confused traffic from a St. Joseph's Day parade gaily promenading through the Vieux Carre streets.

When everyone finally arrived, they were seated at tables to sample some of New Orleans' famed cuisine. After one and a half hours of gastronomical delight, the induction team entered the adjoining room to prepare for the evening's event. Everything in order, the induction ceremony commenced.

Induction committee members were: guest speaker Dr. William Klos, a past national president of HKN and present professor and head of the Department of Electrical Engineering at the University of Southwestern Louisiana; Drs. Robert Drake and Y. J. Seto, EE professors at Tulane; Charles Hetteima, president of the new chapter, and Kirk Dameron, vice-president.

Dr. Klos presented the six faculty and twelve student inductees with their membership certificates while wives and dates looked on. He delivered an entertaining and

informative speech to the Green Wave EE's and friends, interspersed with amusing anecdotes. His subjects ranged from the history of HKN to its related awards and opportunities, and even to Saint Peter and the Pearly Gates.

Upon the conclusion of the ceremony, installed members relaxed, milling among themselves in easy conversation. Plans for the remainder of the evening were discussed, and many members de-

cided on a tryst at Pat O'Brien's piano bar. Others opted for a walk down good old Bourbon Street, with a few of them stopping off at Preservation Hall for some of that Dixieland jazz.

Whatever the choice of entertainment, the majority of the Theta Alphas, after drinking up New Orleans' nightlife, ended up at Cafe du Monde for cafe au lait and beignets (coffee and doughnuts). A good ending to a good night.

From left to right: Nick Musmeci — Secretary, Dr. William Klos — HKN National Past President, Charles Hetteima — President, Dr. Y. Jo Seto — Faculty Adviser, Kirk Dameron — Vice President.





# Altruism and the DEMISE OF NEW YORK CITY

*Transcript of a talk given at American Electric Power auditorium in New York City, sponsored by the AEP Alumni Chapter of Eta Kappa Nu.*

The title of my talk is "Altruism and the Demise of New York City." A better title would have been "Altruism as the Cause of the Demise of New York City," but that phraseology is a little awkward. However, that is the theme I would like to develop in the next fifty or so minutes: that what is destroying New York City is the morality of altruism and nothing else.

## FALSE EXPLANATIONS FOR NEW YORK CITY'S PROBLEMS

As an introduction to that, I would like to talk briefly about some of the things that are typically given as the cause of New York City's problems which are not causes, which in fact have virtually nothing whatever to do with the problems New York City faces. My source here is an excellent article that appeared in the *Wall Street Journal* this fall when everything was running hot and heavy for the city, looking like it might be going into bankruptcy right away. This is called "New York Is a State of Mind." It is by Irving Kristol, who is Henry Luce Professor of Urban Values at New York University. An excellent article. He discusses some of the issues which are given as the cause of New York City's problems and he talks about why they are not.

## The Unions

Certainly one of the problems New York has in terms of its financing, its funding, its financial situation, is the tremendous sums of money that are paid to the unions. In particular, we all know about the problems with the pension funds. But that raises the question of why the unions have gotten such tremendous settlements from the city. And if you listen to the media, the answer you would have to come up with is that, for some reason, the unions here are more belligerent or aggressive or acquisitive than unions in other cities. Kristol denies that. There is no evidence whatever that New York's unions are any more aggressive than unions elsewhere. As a matter of fact, Kristol says, the tremendous benefits the unions have received were given to the unions without any great pressure. They were simply handed to the unions by the political leaders of the city as the progressive, liberal thing to do. There is a wonderful quotation here from Kristol that I would like to read because it kind of sets up the whole picture. He says: "I well recall having dinner with a municipal trade union leader who had just come from a final bargaining session. He was pale and ashen. 'Have things gone badly?' I inquired. 'Terrible,' he replied. 'They actually gave me everything I asked for! What in God's name am I going to do next year?'"

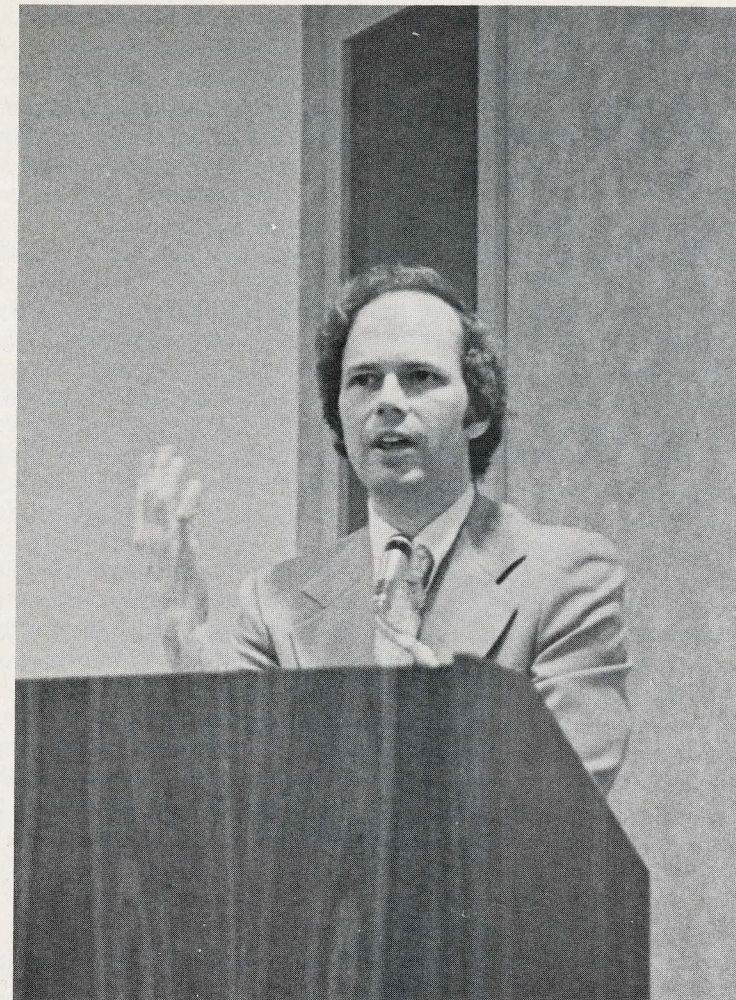
## Welfare Pressures

Another of the problems of the city is the welfare roles and the

amount of money that is paid out in welfare. It is argued that the size of New York's welfare population makes it politically impossible for a politician to get elected without currying favor with the welfare people, and that as a voting bloc they force irresponsible schemes on the politicians. Now that is garbage. As Kristol points out, welfare recipients vote notoriously infrequently. They are not a terrific voting bloc and when they vote there is no indication that they vote consistently for one side rather than another, one party rather than another. The welfare population is not a coherent solid, consistent group of people. It is a fluctuating body of people with people moving in and out all the time. Now no doubt there is a hard core somewhere, but most of the people on welfare are not there consistently, all the time.

We all hear phrases like: "there is going to be blood in the streets," "they will burn the city down," "they will tear down the buildings," etc., as threats. And generally it is implied that those are threats from the welfare people. But it is not the welfare recipients who talk about blood in the streets. As Kristol points out, after all, it is *their* blood that would be in the streets. That kind of language comes from the intellectual leaders of this city. It comes from the media and it comes from the politicians. It does not come from the poor.

Now New York is an old, industrial city. As an old, industrial city, it has problems, as many old, industrial cities in the country do. Industry and jobs moving out,



by M. Northrup Buechner  
Assistant Professor  
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erosion of the tax base. But other cities in the same type of situation do not face bankruptcy. That is uniquely New York City's problem.

## Welfare Expenses

It is also argued that New York City pays all her welfare costs while other cities don't pay any. That is not true. New York pays one quarter of the total welfare expenses of the city. It is true that other cities in the country may not pay any, but that does not mean that the citizens who live in those cities do not pay for welfare. It simply means that it runs through a different channel. Instead of taxes being collected by the city and redistributed to the welfare

population, the taxes are collected by the state and redistributed. It does not mean that the citizens of other cities escape that tax burden altogether.

Those are some of the more common explanations of the problems New York City has, and I do not want to deny that they may have some marginal impact. But it is not the story. Those are not the kind of things that destroy a great city. The question is: what is going on here? Why is New York City being destroyed? And it is not true, by the way, although you might think so from the media, that we are out of the woods. The City is going to have to get back in the credit market in three years when this loan runs out, and right now it does not look good.

## THE IMPORTANCE OF IDEAS

The answer to what is really going on here is *ideas*. As a teacher, a professor, you may think I am biased in the importance I attach to ideas, but in my view virtually nothing else matters at all. Ideas determine the course of human history. Across the board, at every twist and turn, in all events, it is ideas that matter and hardly anything else at all. The reason for this is that it is what men believe is true and what men believe is right and what men believe is practical that determines what they will do, and none of those things is self-evident. What is true, right, and practical are things that have to be discovered. What men believe is practical, for example, depends on the theories they have accepted, explicitly and implicitly, of the kinds of things that are likely to be practical in reality. And what they believe is practical, or right, will determine what they decide to do.

History is simply the record of what men have done in the past. It reflects exactly what men believed would work or was right in the past, and that means that ideas determine the course of mankind's history. Nothing is more important than ideas and no group needs more desperately to grasp that than businessmen. Typically they have regarded ideas as the sphere of ivory tower philosophers and those ivory tower philosophers have turned around and are cutting their throats with those ideas which businessmen thought were unimportant.

## ALTRUISM IN NEW YORK CITY

The dominant ideology of New York City is altruism. The more popular name for it today is the politics of compassion, the politics of benevolence, the politics of good will toward one's fellow men. That particular ideology happens to be sweeping the globe. It is not unheard of in the rest of the country. But there is no question that New York is the country's intellectual leader. The trends are set here. The direction the country goes begins here, and it begins here because this is where the



ideas are focused on. This is where all the media for the communication of ideas are centered and it is where, as a result, the whole thing gets going. The morality of altruism has more power, more sway, more impact and importance in New York City than anywhere else in the country.

#### ALTRUISM MEANS "HELPING OTHERS"

Now, the popular meaning that is attached to altruism, the way most people understand it in normal, everyday discourse, is roughly "helping others." They believe altruism simply means helping others: giving to charity, giving a dime to a beggar, helping out a neighbor who is having a rough time or who is in trouble for the time being, stopping to pick somebody up who falls on the sidewalk, helping someone who has been in an accident. And it includes for most people, parents taking care of their children, taking care of your family, being nice to people you do not know, etc.

But that is not what altruism means. And for proof of that I ask you only to consult your conscience. All of us have been raised in a culture where the altruist moral code absolutely dominates the entire culture. Its meaning is imprinted on our souls. There is no way anyone could grow up in this country and avoid it. And for confirmation of the things I am going to say about the altruist moral code, I ask you only to refer to what it really means to you. It is not just "helping others."

#### ALTRUISM MEANS ONLY "HELPING OTHERS"

To begin with, to act consistently on the altruist morality, you cannot just give to the poor, you have to give everything you have. If you are working to some extent for your wife, your family, for people who are important to you personally, people who are personal values to you, whom you love, if that is partly what you are working for, you are not fully moral as far as altruism is concerned. To some extent you are selfishly motivated and you are acting out

of and for your own self-interest.

Moral perfection would require that you sacrifice everything, that you give up all your values, that you go and live in the jungle and dedicate yourself to the service of savages. To seek out the least worthy, the most degraded and helpless members of mankind and give up your life for their sakes, that is the altruist ideal. It is not just "helping others." It means *only* helping others. And there is a big difference.

#### ALTRUISM MEANS SACRIFICE

"Helping others" is not an accurate description of altruism. Altruism means, according to the dictionary definition, placing the interest of others above the interests of yourself. Altruism is the morality of selflessness and self-sacrifice, with the emphasis on *sacrifice*. It demands not that you give something to others, but that you give everything you've got. The primary moral injunction of altruism is to sacrifice for the sake of others.

On this moral code, how do you judge a man's moral character? Well, how is a man's moral character judged publicly in this culture? It is judged by: "what has he done for others." The more he has sacrificed, the more he has given up, the more he has surrendered for the sake, for the welfare, for the benefit of others, the higher his moral character and the more highly he is revered. That is why Albert Schweitzer is *the* representative of the moral man in today's cultural view. He is held up as an ideal because he gave up everything and did exactly what altruism tells him to do; he went and lived for the savages in the jungle.

#### Sacrifice is the Measure of Virtue

The more you give up on the altruist moral code the greater is your virtue. But if you keep anything for yourself, your virtue is not perfect. And the extent to which you serve yourself, the extent to which you are interested in yourself, the extent to which you do not give up for others, is the measure and the extent of your

guilt. It is the extent to which you have not reached moral perfection and it is the measure of your depravity on the altruist moral code. The ideal is to give up everything that *you* want and do what *they* want, whoever they may be.

Now the standard reaction to this ideal is that it may be fine in theory but you cannot live that way. There is no more damning indictment that could be made of altruism than that response. It is true, you cannot live that way. It is true, nobody can live that way, but you can die that way and you can destroy yourself that way. Which is what altruism wants. Altruism is not a code for living, it is a code for dying. It is a code which holds up as the goal of your life slow suicide by painful degrees, a life in which you progressively give up and surrender everything that you value and everything that is important to you. Death by slow suicide, which is exactly the path New York City is following.

#### THE MEANING OF SACRIFICE

To really understand what altruism means in fact and in reality, as it actually operates in the real world, and the way people really understand it when the chips are down, you have to understand the concept of sacrifice. "Sacrifice" is the key to the whole altruist moral code. What does sacrifice mean?

If I offered to give you a dollar in exchange for a penny, would you consider that a sacrifice for you? Would you be likely to talk about how much you sacrificed in giving up the penny for the dollar. No, it would not be a sacrifice, of course. If on the other hand, for some reason, you were willing to give me a dollar in exchange for a penny, that would be a sacrifice. If you gain from an exchange, it is not a sacrifice. If you come out ahead, it is not a sacrifice. A sacrifice means giving up what you value more for what you value less. Giving up those things which are more important to you for things which are less important to you.

#### Sacrifice and Choice

Life is a constant process of choosing alternatives. All of us face that problem everyday. There are two major categories in which those choices have to be made. Time — our time has to be allocated among a tremendous variety of alternatives. You had a choice tonight of going to the theater, going home, watching television, going out for a drink. You had to choose which of those things you wanted to do.

You also face that same kind of choice with money. You can buy steak, pork chops, chicken, and money can be spent in all sorts of various ways. You have to make the choice. Everybody faces a constant series of alternatives as simply the process of living. How do you choose? If you do what you want, you are not sacrificing. If the alternatives that you choose are the things you want to do most, it is not a sacrifice and you get no credit on the altruist morality. In fact, if it is straight self-interested behavior, you get a moral black mark against you.

#### Examples of Sacrifice

Now let's take some examples. Parents give up vacations, they give up golf clubs, they give up all kinds of entertainment, in order to put money aside for their children's education. Is that a sacrifice? It is a sacrifice for parents who would prefer to see their children stupid, uneducated and unprepared for life, who would really rather spend the money on vacations and have a good time. But for parents who value their children and care about their future and care about their lives, it is not a sacrifice. They are buying with their money what they value most.

A mother gives up a new fur coat in order to have money to buy milk for her baby. Is that a sacrifice? No, she values the baby's life more than she values the fur coat. A man may take his entire life savings to pay for his wife's operation, to save her life. It is a sacrifice only if he would rather have her dead. If he values her life, if she is important to him and he spends the money for her opera-

tion, he is pursuing his highest value. He is doing that from which he benefits most. It is not a sacrifice, and to label it a sacrifice is to label him morally corrupt.

#### Charity as a Sacrifice

When do people sacrifice? The most common everyday example is giving to charity. Nobody wants to give to charity. Nobody really wants to give their money away. Why do they do it? Why do people give to charity? I am not talking about every instance, but most of the time. Why do people give to charity? They have to make themselves do it. It is a painful process. It is something where they have to push themselves against what may be a fairly intense resistance. And it is a sacrifice. It is something that is done out of duty, out of a sense of moral obligation, and for no other reason. That is what sacrifice means. And that is the injunction of altruism. The concept of duty is a direct consequence of the altruist moral code. A duty is a moral obligation in which you have no personal interest. It is a moral injunction, something that you must do even though you yourself have nothing to gain from it.

#### Only Immoral People Should Sacrifice

If you understand the meaning of sacrifice, then it is clear that a morality of sacrifice could be appropriate only for people whose values were all twisted up. A morality of sacrifice would be appropriate for a mother who would prefer to have a fur coat and see her baby die. It might be appropriate for the husband who prefers to spend his life savings on a good time and see his wife die or for parents who would thrill to have a vacation and see their children ignorant and stupid. For such people, the morality of sacrifice could be appropriate. But for normal people with rational values, the morality of sacrifice twists everything inside out. And more, the acceptance of the altruist moral code itself twists people's values, so they end up not knowing what they value and what they don't value, and they do not know what to do.

#### ALTRUISM AND GOOD WILL TOWARD MEN

Now why do people accept altruism? That is a very important question. Why has that moral code absolutely swept the world? Why do people believe that it is right to sacrifice? A partial answer to that, and I want to stress, only partial, is people believe that altruism stands for benevolence and good will among men. As in the examples I opened with about helping your neighbor, helping out a friend, helping an accident victim; people believe that that is what altruism means. They believe that in accepting and advocating the altruist moral code, they stand for a general policy of good will, good feelings, respect, and benevolence among men.

That is the most vicious fraud that has ever been palmed off on the human race, the fact is that altruism as a moral code makes any good will between men impossible. It wipes out benevolence among men. It destroys good will and turns people who otherwise might be friendly, open, benevolent, thoughtful people into cold, withdrawn, uncaring, thoughtless people. It draws lines between men and separates them from one another irrevocably.

#### HOW ALTRUISM DESTROYS GOOD WILL

Let me give you a specific example to illustrate how altruism does that. Think of a friend you may have, any friend, somebody you like. Now suppose that I was able to convince you that from now on your life belongs to him, that you have an absolute moral obligation to perform and meet any claim he cares to make on you. That your life, your income, your values are all subject, from now on in, to his desires, his needs, his troubles, his rule, whatever. From now on you belong to him. Your life belongs to him and the absolute moral obligation you have for the rest of your life is to sacrifice for his sake.

I don't think it takes great introspection to realize that you are not going to be friends anymore. If I am able to really convince you of that, your friendship is going to be



dead and you will avoid him like the plague. Anytime you see him, anytime you run across him, you will feel the claws of that moral absolute in your soul and that claim will reach out and pull at you. You will have to avoid him to protect your life.

#### Altruism's Effect on the People of New York

There is a great paradox for those who do not really understand altruism. New York City is the area of the country where altruism is most importantly in control. It absolutely dominates all of our cultural life, all of our communications, the media, everything. It is the unchallenged absolute of the city. Not so much in the rest of the country. And at the same time, New Yorkers have the reputation of being cold, hard, withdrawn, heartless people.

Now that is a very hard thing to prove statistically. I have to go by common impression, but my impression is that it is correct. Things happen in this city that would never happen in other cities in the country. To prove that, you only need to go out and stop people on the street in Cincinnati, Ohio, and ask for directions. They do not jerk, they do not look at you suspiciously, they do not withdraw, they do not ignore you and walk on.

Last night, on the news, there was a story about an old man who had fallen down on one of those long escalators in the subway. He had hit his head and was bleeding all over. People, many people, stepped over him to get off, up the escalator and out of the way. And they left him there, bleeding. In the Kitty Genovese case, which is probably the most notorious, people would not take the trouble to lift the phone to call the police when somebody was being murdered outside their window. That is inhuman. I mean, that is really inhuman. And what we are talking about here are non-sacrificial actions. It is not a sacrifice to lift up the phone and make a phone call or to help an old man to his feet. Why do these things happen?

#### Every Man's Trouble Is a Threat

The answer is that New Yorkers generally believe and accept the altruist morality. Why did they want to get away from that old man on the subway? Why did they hurry away from that old man on the subway? Because having accepted the altruist morality, they believe that if they stay around long enough, he will get his hooks in them. They will feel his claim on their lives. The moral absolute will reach the point where they will not have any choice, they will have to act on their moral convictions and that means they will have to sacrifice and dedicate their lives to him for as long as they know him. And so they feel like they are the threatened ones and the feeling is akin to life saving: "let me out of here, get away from me," and to get away from him as fast as they can. To get him off their minds and out of their sight so that they do not feel that claim on their lives.

The fact is that on the altruist moral code, every other human being is a threat because every other human being has a claim on your life, on your fortune, on your happiness. That is not a code of good will toward men and it does not generate good will or good feeling or benevolence. It generates the exact reverse. If you really believe that one man's need gives him an absolute prior claim on all of your values and everything you care about, you have no choice but to hate and fear anybody who might assert that claim. It is a myth — it is more than that — it is The Big Lie that altruism has anything to do with benevolence and good will among men. Altruism makes benevolence and good will among men impossible. It wipes it out.

#### ALTRUISM AND THE GUILD SYSTEM

Let me give you an example from when altruism really ruled the earth, during the Dark and Middle Ages. The guild system was the product of the Dark and Middle Ages and it was a system set up on the morality of altruism. Modern altruist historians still talk

about the guild system as a policy of good will and brotherhood toward one's fellow men. It was designed to eliminate what is called "economic harm."

One of the ways they used to eliminate economic harm by one guild member against another was a detailed set of regulations governing the production of any item. As part of the laws of the guild, every detailed step of production was laid out and every guild member had to follow exactly and precisely those regulations as they were described. That meant that everybody ended up producing the exact same product. Nobody was in the position of having a product that was any better than anybody else's. Consequently, nobody was in a position to compete any better than anybody else or take customers away from anybody else, and therefore, no "economic harm." Everybody felt safe.

#### How It Worked

However, that kind of system does not work by itself; there have to be certain sanctions. They were not pretty. Expulsion from the guild meant death by starvation at that time in history, but they weren't satisfied with that. In one of the guilds, if you altered the red dye, you got your right hand cut off. Now that is interpreted as a policy of brotherhood: everybody the same, nobody gets ahead of anybody else, nobody does anybody else harm. But look at what it really means in fact.

It amounts to the incompetent, lazy, inferior members of the guild putting a knife or an axe over somebody else's hand and saying "if you try to do better than me, I'll cut your hand off." The modern equivalent would be "try to do better than me and I will blow your brains out." And we have lots of regulations, particularly in the antitrust laws, which are motivated by just that view of economic and social relationships. That is not good will or brotherhood, and it is of the most terrible, terrible consequence that most people have accepted it as such.

#### ALTRUISM, SLAVERY, AND POWER LUST

Altruism is the basic philosophy of slavery. It makes slavery a matter of course. It says that some men serving others is the moral ideal. Those who can must serve those who cannot. The competent serve the incompetent. Those with ability serve those without ability. Altruism makes this the official philosophy of the society.

Why do people advocate altruism, people who really know what altruism is about? The motive is power lust. In that philosophy of those who can serving those who cannot, there has to be somebody telling them what to do. The advocate of altruism sees himself as the dictator who instructs the rich how to serve the poor. He is the one who will give the orders. That is the root motivating power behind the whole cultural movement toward altruism. Basically it is an issue of power lust.

Now, what has all this got to do with New York City? In my view, this is still the greatest city in the world, and a great city is not destroyed by the petty kinds of political corruption that are what we are given as the causes of New York City's problems. The devastating force, the destroyer, that has brought New York City to her knees is altruism.

#### ALTRUISM AND COLLECTIVISM

Altruism has its cultural effects and its cultural impacts, as we have seen, but the primary impact of altruism is on public policy. It is on what government does and the kind of philosophy that rules the actions of government. Altruism is the root of collectivism. It is altruism that is behind the worldwide movement to socialism, communism, collectivism. Altruism is the base, and this is the reason why the United States is losing from one end of the world to the other.

#### Service to Others Equals Service to the State

The connection between altruism and collectivism is very simple and

very direct. If man exists to serve others, the question is "what others?" Who are the relevant others? The others you are enjoined to serve is everybody but you, within a given frame of reference. What is that frame of reference? Well, the only frame of reference that makes any sense is the political, cultural, social system in which you live. And all the people living within a given geographic boundary is what we call society. So the injunction to serve others translates immediately into the moral absolute that man exists to serve society.

But what is society? Society itself is only a collection of human beings. Somebody has to organize and direct society. Who does that? It is the state. So altruism translates again into the idea that man exists to serve the state, the state being the representative, the organizer, the director, of society. And it is on that basis and in that way that altruism and collectivism are sweeping the globe.

#### Altruism and Communism

You cannot fight an enemy if you share his basic philosophy and the United States today is without any leaders to give us any moral opposition to the communists. Because on the altruist moral code, you see, the communists are right. There is no way you can oppose communism and not oppose altruism. The communists are simply the most open, consistent advocates and practitioners of the altruist code. Under communism, man exists to serve the state *to the end*, and there is no question, there is no doubt, it is exactly straightforward, open, and obvious.

That is why we are so helpless in our foreign policy. That is why the foreign policy of this country is such a wreck. That is why we can only react to their initiatives. That is why we do nothing but give things away in the SALT and other disarmament treaties. That is why the lights are going out all over the world.

#### Collectivism in New York City

In this country, in New York, it is the basic philosophy behind in-

volving the government on a wider and wider level in "doing things for the people" and providing programs "to help those in need," "to help the disabled," "to help those who can't help themselves." (We are all familiar with the standard jargon.) That is the basis on which the government has expanded and in New York City does more than in any other city in the country. It flows right out of the altruist-collectivist position.

#### THE LEAST WORTHY AS THE FOCUS OF CONCERN

The so-called politics of compassion is merely the politics of altruism. It is the politics of raising to the level of a sacred idol the least worthy members of society and holding them up as the goal for all of our efforts, the beneficiaries of all of our actions and all of our energy. They are the ones for whom the society is supposed to be run today.

The drug addict: I don't really have statistics, but my impression is that almost the entire drug population of New York is on welfare. That means they are supported by your taxes. In addition, the city has special programs just for the drug addict. He gets special considerations, special rehabilitation programs, all of which are paid for by your taxes.

The high school dropout: He has a special program. He gets the Job Corp. Again, tax supported which we pay for.

The mugger, the thief, the rapist, the murderer, the burglar, criminals generally: What is the view of them? Not to punish them, not to discourage them, but to provide them with special programs for rehabilitation while they are in prison.

The promiscuous woman who sleeps around without even the thought to take the most simple, elementary precautions: She gets a special program. It is called Aid To Dependent Children.

And all those others who cannot or will not support their own lives, much less an industrial civilization, and still less the greatest city in the world; the lame, the halt, the blind, the mentally retarded, the



infirm, the crippled, the deaf, the sick and dying, the hungry, the drunk, the helpless, the incompetent, the handicapped, all of them: They are the ones the culture is for in the altruist view. They are the beneficiaries. It is for them the government and society is to be run, and that means they are the ones you are supposed to be working for.

#### THE MEANING AND SIGNIFICANCE OF NEED

What do they have in common that gives them their special status as slave-holders? If you were to examine all those classes of people, you would find that they have one specific thing in common: need. Their claim on your wealth, their claim on your effort and your energy and your happiness is supposed to be based on and derived from their needs.

Now what is a need? If you look at the concept of need carefully, it means an absence, a lack. It means something is missing. To be in need means to have a desire for something which is not there. Need refers basically to values which are necessary or desired but which are not there. Need, then, is basically an issue of an absence of values.

#### Why Need Is a Claim

The altruist moral code holds that one man's need is a claim on everybody else's life. So the question is, how can an absence or lack of value be a claim to anything? How can the simple fact of an absence be a claim on somebody else's life? And rationally, the answer is that there is no answer to that. A man's need could be relevant to people only if he had some positive values of character that meant that he suffered unjustly. But need in and of itself cannot be an injunction to action or a claim on values.

But that is not the altruist view. For an altruist, it does not make any difference and it is plainly irrelevant whether somebody is a good person or not. What counts is: he is in need. And that is a claim because the law of the morality of sacrifice is higher values get

surrendered to lower values.

The ultimate state of surrendering higher values to lower values is to give up what you value most for what you care about not at all. To sacrifice something to an absence or lack of value is the ultimate black mass of the altruist moral code. Probably the most popular form of that is the command to "love your enemies, do good to them who do evil unto you." That means to give up your values for the sake of men you hate and despise and who want to kill you. That is the altruist moral code.

#### THE IMPACT OF ALTRUISM ON SOCIAL POLICY

Its practical consequences can be seen most clearly today in the criminal justice system. We are all familiar with the bleeding heart liberals who care more about the criminal than about the victim. Now it is not really an issue of being a bleeding heart. The question is, why don't their hearts ever bleed for the victim? Why do their hearts bleed exclusively for the criminal? Why is the criminal their sole focus of concern? The only way to understand that kind of perversion is the altruist moral code. On the altruist code, lower values come before higher values — the criminal comes before the victim.

New York City is having budget cuts. What do they cut? They cut police, fire, sanitation; they cut the essential services that the working population of the city needs in order to survive. Did you ever in the whole history of this crisis hear anybody suggest cutting welfare payments by a dollar a month or five dollars a month as maybe a way of saving some money? No! On the altruist moral code, welfare is more important than police or fire or sanitation.

On the national level, Congress has been cutting national defense all over the place while the Russians are surging ahead and are about to blow us off the globe, and nobody thinks of doing anything about welfare. Welfare simply goes on and gets added to and added to, while national defense can be cut to ribbons.

#### THE SURVIVAL OF NEW YORK CITY

How long can a great city survive when the goals motivating its cultural, social, political life are not achievement, production, and wealth, but need, suffering, and lack of value. Well, we are finding out.

Can New York City survive? In my view, it is very unlikely. I think altruism is too entrenched and the morality of sacrifice is too widely accepted here and there have been too many political consequences in terms of the artificial creation of interest groups.

The most terrifying statistic is that since 1967 New York City has lost 470,000 jobs. 470,000 jobs! That should just strike terror into the heart of any politician or anybody who is in a position to do anything about this city's future. We should be observing desperate efforts to fix it and to change whatever it is that is destroying the city in that fashion. But if you had to name just one thing that is the reason those jobs are leaving the city, it would be the city's taxes. And instead of cutting taxes, we raised them in November. It would have been much better in my view to have let the city go into bankruptcy and find some way to reduce taxes. The only real question for New York City is how long the collapse will take, and by current statistics, it doesn't look like it is going to take too long.

#### New York City's Claim on the Rest of the Country

It seems that the only way to save New York City is to get the rest of the country to do it. Somehow we have to get the rest of the country to provide the funds to keep us afloat and living in the style to which we have become accustomed. That would certainly be good for New York City, for awhile, but it would be very ominous for the rest of the country. It would mean that the rest of the country had accepted the altruist moral code.

The only claim that New York City can make to funds from the

rest of the country is that we need it. We need it! That is the only claim we have to make. Just recently we all saw the picture of Mayor Beame on the cover of Time magazine holding a tin cup. It exactly, exactly, represented the attitude that Mayor Beame and Governor Carey were projecting in their public appeals for support.

It was the attitude of the bum on the street corner who rattles his tin cup, *threateningly* — "give me money or else." What is he threatening you with? With moral condemnation, with guilt. On the altruist moral code, he has the right to your funds and if you don't give them to him, you are guilty. That is exactly what Beame and Carey were telling the rest of the country. It is not good for the future of the country that the rest of the country seemed to accept it.

#### THE SURVIVAL OF WESTERN CIVILIZATION

The real question is can the United States of America and western civilization survive. And the answer to that is, not on the morality of altruism. Altruism has the midas touch in reverse. It turns gold into lead. It is the reason why we are losing the cold war, why the retreat is turning into a rout. To save the world, to save this country, altruism has to be destroyed. But, destruction is not an end in itself and there is no way to destroy an idea without substituting a better idea.

#### THE ALTERNATIVE TO ALTRUISM

What is the alternative to altruism? Psychologically, for the individual, it is the absolute conviction that your life is *valuable*. That your life is *important* and that it belongs to *you*. That your days and your time are too valuable to waste, throwing them away on the misery and the sores and the suffering of the globe. That your life belongs to you and that the good is to live it. That your life is too valuable to be sacrificed to the

cannibals of our society who are willing to live on your blood.

For most of us, it means simply the recognition that the life we are actually leading is morally right. That we are not kind of guilty or a little bad or somewhat evil because we pursue our own interests. That it is good to value your life and to want the best for your life for the span of years that you have on this world. That to recoil in horror and indignation from anybody's claim to a minute of your time or to a dollar of your money is the most profound mark of a moral man. It depends on the conviction of your own goodness and your right to your own values. But to take that kind of a position today requires a tremendous amount of moral courage. It would mean, among other things, the businessmen of the country standing up and saying, "Yes, I am working for my own profit. I earn it!"

#### AYN RAND AND OBJECTIVISM

We don't see that today. But to take that position really requires more than courage. It requires ideas. It requires a philosophy. It requires more than the individual valuing himself; he has to know why he has a *right* to value himself. The answer, the ultimate answer to the problems of the country and to the altruist moral code is Ayn Rand's philosophy of Objectivism. I am a believer in her philosophy and everything I have said here tonight is my interpretation of her ideas.

She begins with the sacred, supreme value of the life of the individual human being. She holds that he has a right to live for his own sake and to pursue his own happiness as an end in itself. That he is not a means to the ends of others. That he has a right to his own life and to his own happiness. And on that basis, since reason is man's means of survival, she has derived a moral code, an entire ethical philosophy, of rational self-interest. If you are interested at all in what I have had to say this evening, Ayn Rand is the best source to turn to. Thank you very much.

## CHAPTERS

**ALPHA CHAPTER, University of Illinois**—1975-76 was a year of innovation for Alpha Chapter at the University of Illinois. "To achieve and maintain a high profile on the engineering campus" was the goal set by the officers and advisors at the beginning of the school year, and although limited funds reduced the number of projects executed, the favorable response from faculty and students suggested an expansion of our program is warranted.

Alpha Chapter continued to offer PERC — the Professional Engineer Refresher Course — in order to assist all persons preparing for the Engineer in Training Exam. The course is an opportunity for those preparing for the EIT exam to attend lectures given by professors in various science and engineering fields, to review the material stressed by the exam.

For those students beginning/continuing their electrical engineering studies, the chapter provided a peer-advising program whereby chapter members assist their fellow students in course selection, and share their experience concerning instructions, course content, and advance registration.

The Chapter also sponsored two plant trips this year, to the Delco-Remy complex in Anderson, Indiana and the Zenith Radio Corporation west of Chicago, Illinois. Both trips were highly successful, thanks to the enthusiasm of the two companies and their personnel. Students and faculty members were given tours of the engineering and manufacturing facilities, product testing and Quality Control sections, followed by question and answer periods with plant engineers and management. In addition, Delco-Remy engineers presented a detailed tour of their High Energy Ignition devices, from planning and design through manufacture to product testing, while Zenith engineers previewed their television laser-detection video disk, and gas-discharge thin panel display research projects.

Most of the members of Alpha Chapter worked on individual projects for the annual Engineering Open House (:Revolutions in Engineering) at the University. The Chapter presented a display of textbooks used in the curriculum, and sponsored refreshments for the Open House engineers. As in the past, the Electrical Engineering Department won a major share of the Open House Awards.



# A FIRESIDE CHAT with Leon Zelby

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## APPLES AND ORANGES or THE PROBLEM WITH OVERSIMPLIFICATION

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Since times immemorial, people have been making all kinds of personal decisions with respect to alimentation, shelter, and many, many other types of activities. As civilization progressed, interactions among individuals grew progressively more complicated and so did the criteria upon which particular decisions were made. The reason for this is not difficult to comprehend: many of the decisions began to affect not only a particular individual, his family, his tribe, but also many other groups. And as technology of transportation and communication developed, spheres of influence of various decisions became bigger and bigger.

In an attempt to estimate the effects of some of the decisions, and to facilitate their implementation, the marketplace substituted reasonably uniform media of exchange for the barter system, a step that aided greatly the development of, and simplified economic activity. Since about 200 years ago, many aspects of the marketplace became formalized, and in the effort to compare different sectors of the economy, a common unit for valuation, a quantity that presumably would make incommensurables commensurable gained prominence. Currency became the common denominator, the numeraire, to serve as a means of ranking of diverse socio-economic activities in terms of price, in terms of their cost.

At the turn of this century studies of psychological and socio-

logical attributes of different segments of society developed a need to evaluate and compare various levels of performance, of achievement. In view of the statistical nature of the studies, the presumption was that some sort of average might serve. And so it came to pass that the statistical average became the numeraire, the *sine qua non* of comparison of adjustment, education, ability, literacy, etc.

Since Fall of 1973, many aspects of energy supply and demand, for now and for later, began to occupy much of the nation. Socio-economic and technological implications of energy use and availability began to occupy many pages of print, many hours of study, research, debate, and argumentation in attempts at divining the most desirable, or at least a generally acceptable, strategy. In the course of these activities, including attempts of establishing a criterion for comparing various strategies, a number of elements — old and new — began to receive an increasing amount of attention, and even gain a level of prominence: net energy analyses and net energy ratios; second-law efficiency; risk-benefit accounting; risk acceptability studies; statistical analyses of potential hazards; availability and recoverability of resources and projections therefore, and so forth.

The determination of a suitable energy policy for the nation (in the world context) is extremely important because the industrial (or post-

industrial, or technological) society cannot exist without an adequate energy supply. It is necessary, therefore, to establish some sort of valid criteria for the assessment of relative merits of the various energy technologies and schemes not only with respect to their technological efficacy and reliability but also with respect to the impact their adoption is likely to have on the nation; on the individual, on the world; on safety, economics, life style, climate, etc. As a result of substantial differences among the various strategies, those involved in energy policy decisions need some suitable means of comparison, a factor common to all the devices or processes; a single factor that would somehow rank strategies according to their merit. This would not be unlike the method used by economists in converting goods, processes, and the like, to their monetary value; not unlike the methods used by sociologists and psychologists in converting, ability, performance, etc., to statistical averages. In other words, to try to evaluate apples and oranges on a common basis, to make incommensurables commensurable.

This I believe to be inappropriate at best, because it is not possible to describe the merits of even a relatively simple system by means of one quantity, be it a dollar, a statistical average, a kilowatthour, or whatnot. It is true that the ultimate decision is binary: YES or NO (sometimes a MAYBE creeps

in, but only in an intermediate step); but this decision should not be made on the basis of a numeraire, one common factor. Several examples may clarify the point.

An electronic amplifier is a relatively simple device by current standards. Yet, its merits cannot be determined in terms of one quantity alone: gain is important, but so is the design frequency, linearity, bandwidth, noise figure; sometimes the size and weight, shielding, etc. It is true that one horsepower electric motor is one horsepower motor; but it could be ac or dc, shunt or series, compensated or not, synchronous or induction, 60 or 400 Hz. Gain of an antenna is important, but so are the sidelobes, design frequency, feedpoints, etc.

Even in everyday matters a numeraire is inadequate: Suppose we seek a four-passenger automobile. Is the price the one and only criterion on which we base our decision? It may have been true in Model A or T days, when there was only one model, one color, one make. But now, surely the type of transmission, types of seats, accessories, color combination, enter the process leading to the decision to buy. And so it is with purchases of a TV or refrigerator, or clothes, and so forth. Ultimately, of course, it is the dollar that changes hands, but the specific price represents only one of the factors. Were it the only factor, we would all buy gasoline at service stations where it is cheapest. The fact that gas stations with high prices still exist implies the existence of additional criteria. The existence of many retail stores which sell brands that can be purchased in discount stores also suggests that there are other factors besides price that play a role in the many choices we make daily. The dollar alone is not even a good indicator of the health of the economy — a position undoubtedly not very acceptable to most economists. Somehow, it seems to me that a dollar's worth spent on education is not the same as a dollar's worth spent on cosmetics; a dollar's worth spent for entertainment is not quite the same as a dollar spent on food or medicine.

Quite simply, it seems to be that the magnitude of the GNP alone is inadequate as a description of the welfare or well-being of the nation.

The situations in which statistical averages alone are used for comparisons, for determinations of quality, or rankings are not much different. It seems to me that frequently such uses of averages are not only inadequate, but meaningless, and possibly even harmful. What is the significance of comparing the average of a bimodal, or multimodal, distribution with an average of a normal distribution? What is the merit in assigning significant differences to two averages whose separation is substantially smaller than the standard deviation? As in the case of the dollar alone, the average alone is not only an imperfect but sometimes even an incorrect measure.

Evaluation of energy processes or strategies is not basically different from that described in the preceding examples either: net energy, or net energy ratio by itself is not sufficient as a measure of superiority of one process over another, and in some instances it may even be misleading. For instance, a net energy ratio of one process can be smaller than that of another; yet, the overall heat rate of the second could be lower than that of the first. No different are the situations in which second-law efficiency alone is used as a measure of quality of a given process.

Whether it is net energy, or literacy, or risk-benefit, one factor alone cannot fully describe a strategy, a policy, a scheme. Nor should it be used as the only, or even the main, criterion of acceptability of a proposed solution: an aspirin may cost as much and weigh as much as tylenol; but for some people, one is definitely less acceptable than the other. Is cancer-caused death equivalent to that caused by a heart attack or a stroke? Do the costs of hospitalization and/or the monetary compensation for missed work adequately describe the consequences of respiratory diseases aggravated by air pollution? Is one hour of anxiety worth half as many dollars as two hours? Is a mean temperature increase of one

degree worth so many dollars? What is the value of security, health, well-being? Can all these effects be adequately described by a numeraire?

Which brings us to apples and oranges: they ARE different, y'know.

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At year's end, Alpha Chapter of Eta Kappa Nu conducted its "Outstanding Senior" program to honor members of the graduating class who have distinguished themselves in scholarship, leadership, and in college or professional activities. The winner of the Outstanding Senior Award for 1976 is Daniel Swanson, Jr., with awards also going to Clifton Alston, Ralph Pasquinnelli, Jack Steiner, James Thalmann, and Kenneth Turkowski.

Alpha Chapter initiated 35 members in April, and elected Eric Nagel of Skokie, Ill. as president. He and his fellow officers have begun to explore solutions to our "limited funds" problem. As a former officer and graduating senior, I wish them luck in the coming year, and look forward to reading of the pursuits and accomplishments in the Bridge of Eta Kappa Nu.

by Clifton Joseph Alston

## Alpha Chapter Photo on page 26

**BETA CHAPTER, Purdue University** — "The more you drink, the more you can drink!" became the motto of the Betas last year as they began to increase the number of people who started the day every morning over a cup of coffee or hot chocolate in the HKN student lounge. The income derived from the sale of over 53 dozen donuts and 30 gallons of coffee and cocoa per week was used to sponsor several "TGIF" celebrations for electrical engineering students and faculty at a local pizza house. In addition, money was donated to several philanthropic causes including the purchase of a coffee maker for the University Placement Office, and a "hunger" drive. Supplies were also purchased for use in updating the EE graduate composite pictures in the hallway of the EE building. In April, several Betas volun-

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**ALPHA CHAPTER — University of Illinois Inspection Trip to Delco Remy Complex.**

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## CHAPTERS

teered a Saturday to help as tour guides for "high school day" at Purdue.

Awards became an item of interest to the Betas late in the spring as many hours were put into selecting a best professor, best counselor and best senior in electrical engineering at Purdue. These awards were presented at the spring initiation banquet, along with several other awards, such as a 27 pound donut to the club treasurer. Reverend Joseph Wick spoke to the crowd of fifty on "The Therapy of Laughter", a "sermon" which, had it been given in a church, probably would have had even the little old ladies falling out of their pews in giggles.

New officer elections saw Ron Fisher elected president for the next semester. A picnic and a kegger closed out the 1975-76 school year and also finished off the "coffee fund" bank account, but by

this time the Betas are back stuffing themselves with donuts again, to raise money for a good 1976-77 Eta Kappa Nu year.

*by Bill England*

**GAMMA CHAPTER, Ohio State University**—In the past six months, the Gamma Chapter has been involved in numerous activities which vary from the continuing maintenance of the student coffee lounge to final preparations for the annual Spring Awards Banquet.

On February 28, we were instrumental in supplying manpower to the EE department's annual Beef and Beer Bust celebration which was held at the Immaculate Conception Hall. A good time was had by all who attended. The election of new officers took place shortly before the close of Winter Quarter at which time the new officers were informed of their duties and responsibilities.

More recently, Gamma Chapter has

been active in the Spring membership drive where prospective new members were introduced to the goals and ideals of Eta Kappa Nu. At this time it is anticipated that 25 students will become members at the Spring Awards Banquet which will be held on June 4. The pledge duty for the new members was maintaining the election booth for voting of this year's Outstanding Teacher. With the increased membership, it is hoped that new life and enthusiasm will be developed in our organization.

*by Wayne A. Indorf*

**MU CHAPTER, University of California at Berkeley**—1976 has been a year of revitalization for the Mu Chapter of Eta Kappa Nu at the University of California at Berkeley. Under the leadership of President Curtis Dare the chapter had the largest spring pledge class in many years (51 pledges) and campus recognition and interest in the Society has grown tremendously.

The Mu Chapter has continued its traditional campus services which are administration of the departmental course survey, compilation of a current graduate school catalog library, compilation of a file of recent course final examinations, and the awarding, in conjunction with the University of California Society of Electrical Engineers, of the Outstanding Teaching Assistant Award. The Society has also begun a number of new projects. These are the establishing of a "Job File" of Bay Area companies, participation in the Engineers Peer Advising Center, organization of on and off campus tours, and organization of informal study groups within the EE department.

The California Chapter looks forward to a very good year in 1976-77. There are many enthusiastic members in the chapter and under the leadership of President-elect Larke Reeber the chapter should do very well.

*by Bruce Buteman*

**OMICRON CHAPTER, University of Minnesota**—The first chapter activity of the spring quarter was the organization of the Senior Elective Seminar. All the junior class members were invited, on May 13, to hear the teachers of senior Electrical Engineering electives explain the course subject areas and requirements.

On May 19, 28 new members passed their initiation quiz and were inducted into the chapter. This was the largest group to be inducted at one time in the history of our chapter. An initiation party was held for the new members,

regular members, and guests.

Elections were held for officers on May 25. The new officers are: President—Mark Vojta, Vice-President—Barbara Clauson, Treasurer—Greg Hrdlicka, Recording Secretary—Ed Mohrlant, Corresponding Secretary—Doug Birkholz, and BRIDGE Correspondent—Raja Suresh.

The last activity of the quarter was the spring EE picnic for faculty, staff, students, and guests. The picnic was co-sponsored by the chapter and the school IEEE organization.

*by Terry Thul*

**TAU CHAPTER, University of Cincinnati**—The Tau Chapter found its membership extremely small after last year's seniors graduated. Therefore our chapter set out this year to convince eligible students that the Tau Chapter of Eta Kappa Nu was indeed a worthwhile organization. To convince eligibles to join, the Chapter decided it must perform more services for the EE students. One such service was the creation of a new program entitled Information Forum. This program presented the Electrical Engineering Department to underclassmen and helped establish personal relationships between upper and lower classmen. The Chapter also attempted to upgrade its program of assisting juniors in their selection of senior courses. These programs along with tutoring services and social events had a significant impact on Winter and Spring eligibles as indicated by over thirty initiates. The members enjoyed the work and the new members.

*by Bill Triplett*

**NU CHAPTER, Iowa State University**—Nu Chapter of Eta Kappa Nu has been quite active during the past two quarters here at ISU. A large class of new members was initiated during the fall quarter. During the winter, our chapter sponsored an all day trip to Control Data Corporation in Minneapolis, Minnesota, for all interested students and faculty. We are now preparing to initiate another large class this spring. We have also been working on displays for Veisha during the past two quarters and we will have them ready for the Veisha celebration in May. Our displays will include a stereo display, satellite communications system, a robot, a digital lock, and various electronic toys and games. Later on in May we are planning our annual student and faculty picnic.

As you can see, Nu Chapter has been fairly busy this year. The newly elected officers (of which I am one) hope to continue the pace.

*by Harold L. Cooper*

**BETA UPSILON, University of Kentucky**—In the fall of 1975, Beta Upsilon Chapter initiated 12 new members: 9 undergraduates, 2 graduate students and one professional member. The main project for the semester was conducting HKN help sessions. Eta Kappa Nu members are available at specified times during the day, 5 days a week, to aid undergraduate Electrical Engineering students in their Electrical Engineering courses. Approximately 250 man-hours per semester are devoted to these help sessions.

During the spring semester of 1976, seven new undergraduate members were initiated. This semester the HKN help sessions were expanded to supplement the tutoring program at the University of Kentucky by offering assistance in calculus and physics to non-engineering students.

Beta Upsilon Chapter members were very active in presenting the Electrical Engineering Department to the public at the open house during National Engineers Week by organizing and demonstrating exhibits in electrical engineering labs. Approximately 40 man-hours were devoted toward preparation and participation in Engineers Week.

Beta Upsilon Chapter is proud of Professor Lee T. Todd who was selected as an honorable mention in the Eta Kappa Nu Outstanding Electrical Engineering Award. Dr. Todd was also voted the Outstanding Professor in the Electrical Engineering Department at the University of Kentucky by the Junior and Senior Electrical Engineering students.

Beta Upsilon donated money to the United Way of the Bluegrass Fund. Our Chapter's name was engraved on a plaque which is displayed in a prominent position on the University's campus signifying that we gave the most per person in one of three categories of campus organizations.

*by Richard M. Harr*

**BETA RHO CHAPTER, West Virginia University**—The Beta Rho Chapter of Eta Kappa Nu, located at West Virginia University, would like to once more congratulate the twelve students who have become members of Eta Kappa Nu during the 1975-76 school year. We would also like to extend our congratulations and welcome to all the newly elected members of every chapter of Eta Kappa Nu.

In the past year our chapter has been engaged in various activities designed to bring the students closer together with themselves and with the faculty. These activities have been both educational and recreational, including a trip to the National Radio Astronomy Observatory at Green Bank, W.Va. Sporting events

such as football and basketball between students and faculty, and between different classes were very instrumental in uniting the department.

In football the senior electrical engineering class went undefeated with victories over the faculty, graduate students, junior class, and senior chemical engineers. The team which presented the senior class the most threat was a team composed of both faculty and graduate students, their effort falling only three touchdowns short of a victory.

In basketball the senior class did not fair as well, being thoroughly beaten four games in a row by a team composed of both junior and sophomores. The electrical engineering faculty failed to come up with a team after their unsuccessful attempt at playing football.

The fall semester was highlighted with a banquet in honor of six of the new members. The guest speaker for this banquet was the newly appointed dean of the school of engineering, Dean Bill Atchley, who spoke on the engineers role on the control of technology and its effect on society. The spring banquet ended the year honoring the new members and graduating seniors. The guest speaker for this event was the newly appointed head football coach of West Virginia University Frank Cignetti, who talked about the future of the school's football team.

The graduating seniors of the Beta Rho Chapter would also like to wish the undergraduates of our chapter as well as all the other chapters the best of luck in the future.

*by Rodney Brinker*

**BETA PSI CHAPTER, University of Nebraska**—The spring semester of 1976 began with the selection, nomination, and initiation of five new members. In connection with this, a pledge smoker and formal initiation were held. Pledge duties included assisting with the organization of the annual Engineering Week banquet at the University.

As part of Engineering Week, a twenty-five dollar award was offered by the Beta Psi chapter to the best electrical engineering display. Former president Ed Furman was nominated for outstanding student at the University of Nebraska, representing the electrical engineering department. Professor Jerry D. Gibson was selected to represent the Beta Psi Chapter as the nominee for outstanding young professor in the electrical engineering department. Professor Gibson has served as advisor for the Beta Psi chapter, but will soon depart for a new teaching position. We wish him every success in his endeavor.

New officers were elected for the fall semester of 1976. They include, Presi-



dent, Curt Cornils; Vice-President, Don Borden; Recording Secretary, Kurt Bauer; Treasurer, Joe Friedman; Bridge Correspondent, Ron Taylor; Corresponding Secretary, Ron Taylor.

by Thad Genrich

**GAMMA ALPHA CHAPTER, Manhattan College** — Our chapter has been very active during the past academic year. At the beginning of this year the assistant dean of engineering requested that all the engineering honor societies develop some sort of tutoring program among themselves to aid those students in the engineering curriculum who may need additional help. Old and new members alike of HKN (who number in the majority as tutors) devoted a vast amount of time and energy to make the program a success.

An engineering department open house for high school students was held in December. Again members of HKN were in the majority in helping to plan, develop, and run the whole program. Special thanks and congratulations go out to Timothy C. Pike, student and chairman of the open house committee, and to Dr. Robert Mauro, who planned and coordinated our department's large amount of student experiments and projects. Both these people contributed greatly in making open house day a great success.

Nine new members were inducted including two professional engineers and a new professor in our department. After the ceremony dinner was held at the South Seas Restaurant in Scarsdale, New York. A few of the dishes served included spare ribs, lobster, barbecued shrimp and pepper steak. A fabulous time was had by all of those who attended.

by Charles Boyle

**GAMMA PHI, University of Arkansas** — We began the spring semester with the usual selection of a pledge group. A smoker was held for the prospective pledges to meet the members. We also consolidated our tutoring sessions with other engineering honor societies on campus and held tutoring sessions every Monday through Thursday from seven until nine. The sessions have been widely publicized on campus.

A special meeting was held in order to meet and elect the candidates for the Outstanding Sophomore award. Robert Wofford was elected to receive the award. A committee was also selected to plan a float trip.

We are involved now in the planning of the initiation for the four new pledges.

by David Bradshaw



**DELTA THETA — Pratt Institute Children's Hospital Visitation.**

**DELTA THETA CHAPTER, Pratt Institute** — Delta Theta Chapter of Pratt Institute visited the children's section of Cumberland Hospital on Dec. 21, for the annual Christmas party. At the party, toys and candy were presented to the children by our own Santa Claus.

In addition to the toys and candy, the children received a gift that many need most: Human Warmth. On April 15, Delta Theta Chapter will hold a similar party to celebrate Easter.

Special thanks should be given to all the generous people who gave their time and donations to make this important occasion possible. Arrangements between Pratt and Cumberland were taken care of by Dean Arthur H. Seidman of the Engineering School, who also serves as faculty advisor to H.K.N.

Students will be initiated on April 15, and our gala banquet dinner for our new members will be held on April 30. Elections for new officers will take place on May 4.

by Harvey Zwayer

**DELTA XI CHAPTER, Air Force Institute of Technology** — Among the highlights of our recent activities here at Delta Xi Chapter at the Air Force Institute of Technology was a beer and coke get-together hosted jointly by us and Tau Beta Pi. The party was held after class hours, and there was a good turnout among the student members of both organizations and the faculty. The informal atmosphere prompted numerous worthwhile discussions.

Eight outstanding new members were

inducted in our fall initiation. Dr. Matthew Kabrisky of our EE department was the featured speaker at the banquet held at the Wright Patterson Officers Club. Dr. K's remarks about the future of electronics were illuminating and humorous as always.

Capt. Jerry Gobien was selected by the student members of Delta Xi as the outstanding EE professor for 1975. He is known for his stimulating lectures and his rather challenging exams, as any of his students will attest.

We'll be losing our faculty advisor Major Bob Reinman soon. He is currently sharpening up his Deutsch in anticipation of his forthcoming transfer to Germany. His able replacement will be Lt. Stan Robinson with a fresh PhD from MIT.

by Clayton V. Stewart

**DELTA ZETA, Washington University** — After finally locating our president Ed Snyder hiding in the basement of the power plant, the Delta Zeta Chapter of Eta Kappa Nu managed to get the 75-76 school year rolling in early April. An organizational meeting was held, at which time plans for the initiation of new members were made. None of the candidates' moral values were seriously questioned. In anticipation of initiating our first female member in many years, an effort was made to update the rather sexist initiation ritual and literature that had been in use (ie, changing "he" and "his" to "he/she" and "his/hers" and mentioning that husbands and boyfriends

may be invited to the ceremony as well as "wives and girlfriends"). Due to the small size of our junior class, only 6 new members were initiated instead of the usual 15 or so. This rather limited the number of candidates available for offices, and in fact five of next year's six officers will be graduate students. The first of two Delta Zeta records was set at the election: every officer was elected unanimously (they all ran unopposed).

The second record of the night occurred at the banquet, when graduating senior Ed Rezek set a record of four calfburgers in one sitting, while treasurer Rich Becker kept muttering something about bankruptcy. Unfortunately, this only ties the record of the "Other Honor Society".

Plans for next year include reinstating our semi-annual initiation instead of our present annual one. This will unfortunately have to be done over our treasurer's dead body.

by Corley M. Phillips

**DELTA EPSILON CHAPTER, Ohio University** — Delta Epsilon Chapter held annual elections on 3 May, 1976. The following persons were elected for the coming year: Robert Chalfant, President; Lee Wright, Vice-President; Lee Blake, Recording Secretary; Terri Veach, Treasurer; Robert Bailey, Corresponding Secretary; Donald Seyler, Bridge Correspondent.

The following week a chapter banquet was held. Brian Manhire spoke on some of the lighter sides of engineering in industry.

HKN sponsored an employment counseling session for juniors in all branches of engineering on 19 May. There were 70 juniors present at the two hour session, conducted by Jess Vance of the Ohio University Placement Office.

A joint HKN-IEEE-EE Dept. picnic was well attended on 23 May. Outstanding Sophomore awards were presented to Jeff Cox and Mark Mroz at the picnic. Also Roger Quisenberry, retiring Professor Emeritus, was presented an award for 31 years service. Assoc. Prof. Richard Selleck was also to have received a retirement award but was unable to attend.

by Donald Seyler

**EPSILON THETA, California State-Long Beach** — During the Spring Semester of 1976 our Epsilon Theta Chapter sponsored two very good activities: A trip to the Jet Propulsion Laboratory and a Satellite Communication demonstration.

The trip to JPL was highlighted by an extensive coverage of the Viking mission

to Mars, with visits to the exact duplicate of the landing site, and the Mission Control Center. Additionally we visited the Robotics Laboratory where development of a robot is in process. Due to the 20 minute signal delay, direct command handling of a rover unit on the martian surface is nearly impossible; it is here where the developing robot will come into play. Provided with artificial intelligence, laser range finders and human like stereoscopic vision, the robot, mounted on a rover similar to that used by Apollo astronauts, will be able to choose least dangerous paths, evade boulders and trenches and proceed with many experiments unassisted. This type of system will be launched some time in the future, provided the initial missions are successful.

The Satellite communications demonstration during Engineer Day, was coordinated through Amateur Satellite Corp (AMSAT). During the demonstration we successfully completed two way communication via Oscar 6 and Oscar 7 (Orbiting Satellite Carrying Amateur Radio), with various stations in the U.S. and Canada. These satellites receive signals on telegraph or voice on 145 MHz and retransmits them on 29 MHz, additionally Oscar 7 has an extra translator which uplinks on 432 MHz and downlinks on 145 MHz. The equipment and assistance were provided by Jay Holiday (W6EJJ), vice director of the American Radio Relay League, Joe Reyman (W6PAJ) and myself (Ti2RJ/W6).

For the upcoming semester we are planning various other activities including tours to TRW Laser Laboratories and semiconductor plant.

by Randolph Johnstone

**ZETA BETA CHAPTER, Texas A&I University** — Zeta Beta Chapter of Eta Kappa Nu, National Electrical Engineering Honor Society, held its Spring initiation and annual banquet April 23, 1976. The initiation was held in the Kleberg Engineering Hall. New members inducted were Douglas D. Beu, Reymundo C. Ybarra, and Keith Pollock. The initiation team consisted of chapter members, Francis M. Smith, Alan W. McCulley, James O. Rose, Leslie Don Herring, Roberto Garcia, Jr. and Kenneth G. Rowland.

The banquet was held, afterwards, at the Student Union Century Room. Members and their ladies, as well as several of the Electrical Engineering faculty attended. The Master of Ceremonies at the activities was Kenneth M. Riley. The banquet program was started with a brief history of the Association presented by Donald Carden. The Guest speaker was Mr. Joe Hamner, an A&I graduate working as a Production Engineer for

EXXON in Corpus. Mr. Hammer's speech dealt with what is normally expected of a new engineer. Also, he presented a strong argument against divestment of the large Petroleum Interests. Later, Outstanding Electrical Engineering Freshman and Sophomore, Darin Kincaid and Robert L. Neatherline, were introduced and congratulated for their performance. The chapter officers were then introduced: President Kenneth M. Riley, Vice-President Don Carden; Recording Secretary/Treasurer James Rose, Jr.; Corresponding Secretary Roberton Garcia, Jr. Francis M. Smith, incoming chapter president, then introduced his officers: Vice-President Alan W. McCulley, Recording Secretary/Treasurer Reymundo C. Ybarra; and Corresponding Secretary Keith Pollock.

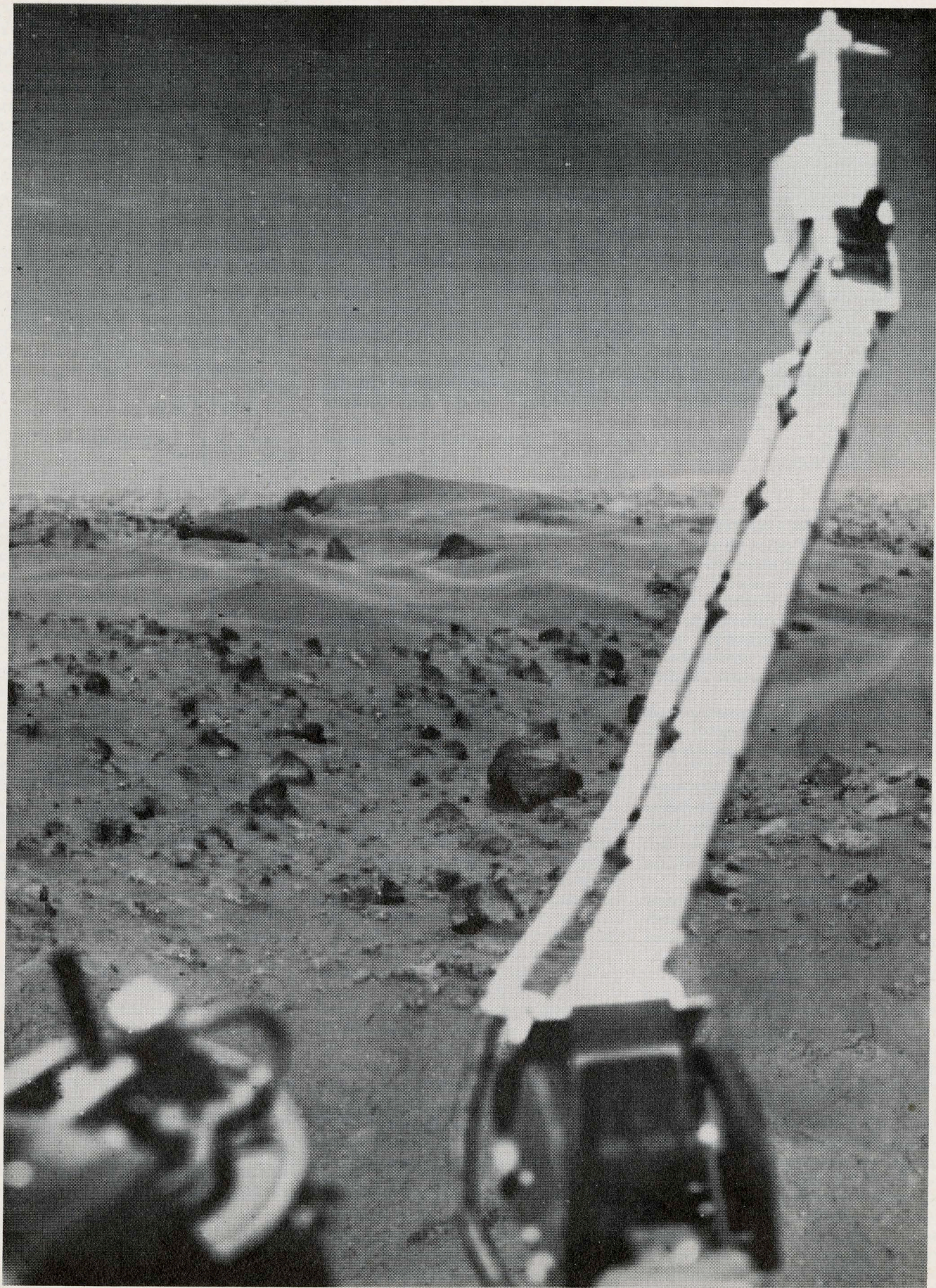
by Robert Garcia

**ZETA DELTA CHAPTER, University of Texas at El Paso** — Activities of the Zeta Delta Chapter for the 1975-76 academic year included the instigation of several new plans of action. A tutoring program for sophomore and junior level engineering courses was started and the chapter sponsored an orientation and tour of the EE building during open house week at the University. Also sponsored for all interested students was an informative discussion on graduate school. Presented by Dr. Michael Austin of our EE faculty, this discussion evaluated reasons for going and procedures for the selection and application to the right graduate school. Our annual banquet, honoring 20 new members, was held early in April this year. Included in the ceremony was the presentation of a certificate to our nominee for the Alton B. Zerby Outstanding Student Award. This year's nominee was senior James Christensen. This year was wrapped up with the election of new officers and proposals for next year's activities.

by Roger Santee

**ZETA EPSILON CHAPTER, Florida Institute of Technology** — The members of the chapter at Florida Institute of Technology are happy to report a most active and exciting year. Our biggest accomplishment was the pledge project. On a Saturday, huge circuit schematic diagrams were painted on the walls of the Electrical Engineering classroom. Of course this was done by permission of the proper authorities. The resulting "new room" looks very professional and the whole project was well received by students and faculty alike. Rumor has it that the Physics department wants to do a similar paint job in their classroom.





# THE VIKING MISSIONS

by Randolph Johnstone

The Viking Mission to Mars has been the principal scientific planetary exploration since the space program began a decade ago. Its main objective is the answer to the question: Is Earth the only life supporting planet in the universe? Our Galaxy contains 100-billion stars, many of them surrounded by planets. Evidence that the basic chemicals of which Earth is composed are found throughout the universe. It has been proven that the ratio of these elements is consistent in our own solar system

with the overall ratio generally observed throughout the universe, therefore, the most logical place around us in the search for extra-terrestrial life would be Mars.

Mars is dry, cold and less favorable than Earth for the support of life but on the other hand it is not totally hostile.

The Mariner Program of some years ago provided the logical steps in the exploration of Mars, just as Viking is necessary to prelude a sample return by automated roving vehicles with artificial intelligence, now in its developing stages in the Robotics Laboratory at the Jet Propulsion Laboratory in Pasadena, California.

On July 20 and September 3, 1976, mankind took its second and third "giant leaps" respectively as both Viking I and II were resting in the martian surface. Viking I landed on the Chryse Plain, Viking II on the Utopia region some 6400 kilometers away and further to the North.

Both vehicles are identical and have the ability to conduct a variety of experiments that hopefully will give us a better understanding of the development of Mars and in turn of Earth and the Solar System as a whole.

Two facsimile cameras are providing stereoscopic pictures both color and black and white for the purpose of reconnaissance and sample collector guidance. The cameras use mechanical scanning mirrors with singlepoint detectors. A single scan-line is imaged by nodding the mirror; the next line is formed by rotating the camera in azimuth and in this way the picture

is built up. The resolution of the camera is several millimeters at close range and it degrades linearly with distance.

The orbiting unit of Viking I and II uses different types of cameras for mapping, selection of future landing sites and seasonal changes on the surface. The imaging system consists of two identical vidicon cameras each attached to a 475 mm optical telescope capable of providing contiguous swaths of high resolution coverage on a single orbital pass. The imaging data is acquired by alternately exposing and reading out the two cameras. The data is stored in magnetic tape for future playback to Earth. Since the JPL computer receives the pictures as arrays of numbers, subsequent images may be subtracted from each other numerically providing resultants with information such as fog density, concentration of carbon dioxide, visibility, etc.

All the data acquired by the lander and orbiter is transmitted to Earth via the S/X-bands and/or a UHF relay. The orbiter communication system consists of a low and high gain antenna and a relay antenna. The low gain antenna provides command coverage in any roll attitude throughout the mission. The high gain antenna consists of a paraboloidal reflector with a 147 cm diameter circular aperture and an S/X-band radiating feed. This system is used for transmitting and receiving S-band signals and transmitting X-band signals during orbital operations. Due to a temporary malfunction on

**Opposite Page:** Those Martian weather reports, received daily from more than 200 million miles away, start here at Viking 1's meteorology instrument. Mounted atop the extended boom, the meteorology sensors face away from the spacecraft. They stand about four feet above the surface and measure atmospheric pressure, temperature, wind velocity and wind direction. The cable parallel to the boom is connected inside the spacecraft body with the electronics for operating the sensors, reading the data and preparing it for transmission to Earth. A second Mars weather station will begin operation next month when Viking 2 lands somewhere in the planet's northern latitude.



the power supply for the stabilizing gyros on Viking II during separation of the lander, the high gain antenna lost its Earth tracking and directivity, therefore the only means of communication was the low gain antenna. The relay antenna is used for receiving UHF signals from the lander.

The high gain antenna boresight is adjustable in flight with a two-degree freedom drive mechanism. Dual frequency rotary joints are used to provide the RF transmission across the hinge joints.

The lander can transmit data both directly to Earth, using an S-band or via the orbiter, using the UHF relay system. The high gain antenna is capable of being pointed to Earth through computer control.

Power requirement for the orbiter is provided by four solar panels at coordinate axes. Each panel is made out of two identical subpanels providing a 15.35 sq. meter array rated at 620 watts. Two 30 amp hour NiCd batteries are used to augment the solar array and serve as secondary source for off-sun operations. The lander is provided with two Radioisotope Thermoelectric Generators (RTG's) connected in series. For lander power requirements in excess of 57 watts NiCd rechargeable batteries are available, the batteries are charged by the RTG's when the lander requires less than 57 watts.

Now that Viking II is on the surface, Viking I has been put into a semiautomatic status. All efforts have been shifted to Viking II for comparison with those of Viking I. So far Martian "life", if any, has not been detected. Unexpected chemical reactions are puzzling scientists at this time; further investigations will be obtained from Viking II Laboratory. Nevertheless, great discoveries have been made as to soil chemical composition, temperatures both on top and below the surface, martian weather has been charted and now predicted, but the main question remains to be answered does life exist? Did it ever? In the months to come both Vikings will provide us with the answer.

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## CHAPTERS

Another fulling activity which we implemented this year was an idea given to us by the University of Iowa. Their idea of a pizza party was modified by us into one giant unique Seafood Festival. Steamed clams were featured along with hamburgers and hotdogs for the landlubbers. Because our chapter has a very small budget, the student branch of I.E.E.E. was asked to foot the expenses.

A chapter scrapbook was started this year in which all old pictures and articles were inserted. It is hoped that this will provide a source of ideas for future Eta Kappa Nu officers and members.

by Art Stadlin

**ZETA XI CHAPTER, Southeastern Mass. University** — In reply to your letter on the activities this past semester of our chapter, the Zeta Xi Chapter of Eta Kappa Nu was very inactive. The membership was low so activities were low. I am pleased to say, though, that with the turnover of offices and the inflow of new members, I expect a good year coming up.

We have decided mainly to use the chapter as a service organization. We are currently trying to get an office whereby we may tutor students in need, advise incoming freshmen, and give tours of our department to any interested people.

We hope to run some money-making ventures to help pay for a banquet which we would like held once a year.

I expect a good year and shall hope for the best.

by Steven A. Burns

**ZETA PSI CHAPTER, Southern University** — On February 27, 1976, the Zeta Psi Chapter of Eta Kappa Nu was installed at Southern University with the assistance of Dr. William Klos, Head of the Electrical Engineering Department at the University of Southwestern Louisiana and the immediate past national president of Eta Kappa Nu.

A man in a supermarket was pushing a cart which contained among other things, a screaming baby. As the man proceeded along the aisles, he kept repeating softly "Keep calm, George. Don't get excited, George. Don't yell, George."

A lady watched with admiration and then said, "You are certainly to be commended for your patience in trying to quiet little George." "Lady," he declared "I'm George!"

The ceremony saw fourteen EE undergraduates and eight EE faculty members become charter members. The Dean of the College of Engineering, Mr. M. Q. Burrell, received the charter for the president of the university. The banquet following the initiation ceremony was highlighted by our guest speaker, Dr. William Klos whose topic was "Honor Society? — the Profession and You".

The members elected chapter officers as follows: President, Willie E. Hires; Vice-President, Clyde Shavers; Recording Secretary, Ronald J. Richard; Bridge Correspondent, T. A. Brewster; Corresponding Secretary, Don S. Stewart; and Treasurer, Odeal M. Wilson. The faculty advisor for our chapter is Dr. James A. Anderson.

At our first meeting, we discussed plans for this semester and the following semester to include a series of technical presentations by members and guest speakers to the EE student body and faculty. The tentatively scheduled topics include: computer programming techniques, electrical power systems, and the Electronic Circuit Analysis Program (ECAP).

by T. A. Brewster

**ZETA PI CHAPTER, State University of New York at Buffalo** — Although we did not have a large membership for the first part of the academic year, our activities were not sluggish.

Some of our members worked with the local IEEE Chapter in its activities throughout the year. Late in the year our vice-president gave a seminar on TV game techniques to interested parties.

Our president worked on the Employment Workshop Committee of the IEEE, and the two organizations helped organize tours of the University by local groups.

In May the annual EE picnic was held at a local park, again aided by our members' activities.

by Ameharl Kaliah

# MERRY MOMENTS WITH MARCIA

The trouble with the guy who talks too fast is that he often says something he hasn't thought of yet.

We like the philosophy of a concern which hands out a small card that reads: "We have no quarrel with those who sell for less; they should know what their stuff is worth."

The rich man employs a butler, a valet, a secretary, a laundress, a cook, and a housekeeper; the poor man just gets married.

Conference: A meeting where executives talk about the things they should be doing.

A man with determination can do more with a rusty screwdriver than a loafer will accomplish with all the tools in a machine shop.

The hardest thing about skating is the ice — when you come right down to it.

They tell of a golf player, so used to cheating that when he made a hole-in-one, he wrote down "zero."



Q: "April showers bring May flowers, but what do May flowers bring?"

A: "Pilgrims."

FUNNY, ISN'T IT?

When the other fellow states his side of a question strongly, he's bullheaded.

But when I state my side of a question strongly, I'm being firm.

When the other fellow overlooks a few of the rules of etiquette, he's rude.

But when I skip a few of the rules, I'm original.

When the other fellow does something that pleases the boss, he's polishing the brass.

But when I do something that pleases the boss, that's cooperation.

When the other fellow gets ahead, he sure had the lucky breaks.

But when I manage to get ahead, Man! Hard work did that!

Funny, isn't it — or is it!

Two teenage youngsters went to the town clerk to ask for a wedding license. When they were refused because they were too young the boy asked "How about a learner's permit?"

A tennis Pro is a guy with a really Great Racket.

I've been told the xerox machine is a copy cat, the water cooler is all wet and our computer lies to strangers.

If you think you have someone eating out of your hand, better count your fingers regularly.

I got thru my annual physical very well. The only thing the doctor wants me to give up is a week's pay.

by Marcia Peterman



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