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TECHNOLOGY AND THE PUBLIC SECTOR

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American Institute of Astronautics and Aeronautics
Los Angeles Section
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16. Abstract <p>The impact of technology on social problems is a matter of increasing concern to the general public as well as the scientific, engineering, and educational communities. Technology and technology transfer are prime forces in our technological society.</p> <p>As we enter into the post-industrial era we need a better understanding of the interfaces between technology, the life styles of people, and the public and private services people need to achieve a better quality of life.</p> <p>This report exposes the complex nature of interfaces which exist among technologists, public administrators, and people in need of improved systems and services. It serves as a mirror to enable each reader to see himself as others see him: his life style, his enjoyment of systems and services, and his role in designing or providing such systems and services.</p>			
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TECHNOLOGY AND THE PUBLIC SECTOR

An interpretive report on a symposium and workshop entitled
The Problem Interface: Society and Engineering, sponsored by the
Los Angeles Section of the American Institute of Astronautics and
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and

AIAA China Lake/PMR/ Point Lobos/San Diego/Sacramento/ Utah . Am.
Assoc. of Cost Engineers . Am. Assoc. of Security Representatives .
AIChE . ASME . Am. Soc. for Nondestructive Testing . ASTM . ASQC .
Assoc. of Woman in Architecture . Auto Club of Southern Cal . Calif.
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County Medical Assoc. . Mayor's Space Advisory Committee . Mental
Health Assoc. of LA County . NASA . National Inventors Foundation .
Rock Mt. Science Council . Small Business Admin. . Soc. of Aero-
nautical Weight Engineers . Soc. of Amer. Military Engineers .
SAMPE . SAVE . Structural Engineers Assoc.

Los Angeles, California
July 27,28,29, 1970

by
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S. Pasadena, California

A Symposium designed to bring
the problem solving engineer to-
gether with problem living people
from ghettos, resource groups, and
city/county governments in a mean-
ingful dialogue on aspects of our
quality of life.

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INTRODUCTION

"If we can go to the moon, why can't we...."

This modern paradox poses a host of questions for concerned individuals and groups.

Is it possible to use the technology of the "space age" to improve the quality of life? Is it possible to improve the physical environment? Is it possible that some of the tools, techniques and approaches that have been used in the space program can bring forth some solutions to urban problems? What is the contribution of technology to those problems confronting the public sector? Is our advanced technology transferable? Is technology neutral or does it have a methodology and process of its own?

The successful resolution of the technological-social paradox has been a fantasy of hope and a reality of disappointment. We have not been entirely successful.

The designers of this conference felt that previous conferences concerned with technology and social phenomena usually found technologists speaking to technologists, proposing solutions to problems that had not yet been fully designed; relying on assumptions of life styles applicable to middle or upper class value structures. The technological society has been like the policeman who found a dead horse on Kosionsko Street and while attempting to write his report realized that he could not spell "Kosionsko"; so he moved the dead animal to First Street and then was able to complete his report.

This symposium and workshop was designed to bring together three social groups - the problem-solving engineers, the problem-living people from ghettos, the administrators and politicians. It was hoped that this mixture of people would expose some of the real issues that require understanding and solution.

No panacea was envisioned. As STARR stated:

"If nothing more comes out of the meeting than the definition of the problem that we are trying to solve in the social areas, that will be a great help. If anyone gets any inspirations, especially in the advanced technology industries, as to how they can help, that will be an extra bonus."

The interpretive results of the conference are contained in this report.

OVERVIEW:

The meeting was divided into three one-day sessions. The first day's session was on Life Styles, focusing on the different ways in which people who are not middle class or upper class live. The intent was to expose conferees to the real problems that are faced by nondominant groups in our society. It was hoped that the conference participants might get a better feel of what these people want, their objectives, criteria and social value systems.

The second day was spent on Delivery of Public Services. Education, mental health, social welfare were some of the areas covered. Discussion of the delivery of services could not be designed to be inclusive. Rather, it was representative.

The third day was spent on the Rendering of Services. This day administrators and politicians, who decide and implement the delivery service systems, exposed the real and apparent problems of the political system.

Each day a luncheon speaker looked at social phenomena from a different point of view. A radio commentator concerned with consumer problems spoke the first day. The second day's speaker was a technically trained person concerned with administrative and social problems of housing. The third day's speaker was a businessman and industrialist who, after the Watts disturbance/rebellion/riot of 1964, applied his talents to the solution of social problems in his community.

Discussion periods afforded opportunities for the audience to

participate in exchanges with the speakers of the morning and luncheon sessions.

The organization of the symposium presumed that there was order in the system - i.e. the design of the conference was an engineering type of logic. What is the problem? (Life Styles). What services are to be rendered? To whom and by whom will the services be rendered?

During the symposium this logic was honored more in the breach than in the observance. But that was what the conference was about. We wished to develop a new look, insight and synthesis of the problem areas.

In addition to logic, consistency, rationality, and cooperation we had to account for ambiguity, inconsistency, intuition, conflict; and search for an understanding of the paradox of technological success and social failure.

An interpretation of the results of this conference are contained in the Epilogue.

Proceeding from an initial query:

"If we can go to the moon, why can't we...." might be reconsidered by the reader in the form of a different kind of question:

"If we can resolve our social problems, improve the quality of our lives, then can we go to the moon, and beyond?"

LIFE STYLES:

The chairman of this session presented to the conference a panel of four people who have different attitudes, expectations, problems and perceptions of life.

As ARAGON stated:

"These people are, basically, a lot different than you are -- they act differently, talk differently, expect different things, behave differently."

The four people represented different life styles. The selection was arbitrary, and the point that the chairman wanted to impress on the conferees is that both the intended and unintended consequences of various kinds of public initiatives must be thought through for various sectors of the population. While complimenting the discipline of systematic scientific inquiry into social problems, he pointed out that many unintended consequences of social initiatives must be considered in addition to the intended consequences. These unintended consequences may be overlooked if one assumes homogeneous life styles.

Some comments on different life styles follow:

A Black Head-Start Mother:

GODBOULT, a mother of ten children, is involved in the Los Angeles Head Start program. Denying one kind of expertise but claiming another kind, she stated:

Riding on an airplane is as close as I've gotten to aerospace, but on the problems of four-year-olds to twenty-year-olds I can give you some rundown --

--I found a lot of things about our community that I wasn't aware of -- like the things middle class people take for granted -- any type service -- like jobs -- better health services, better grocery stores --

--The people out there -- you should know about the problems that exist in our communities -- the only thing I can say is that you can't learn about it listening to me or anybody else -- you have to come out in that community and see people other than people like yourselves -- talk to the people that live there --talk to our children -- find out what they want -- because a lot of things that you might want for them, they may not want.

A Handicapped Person Confined To A Wheelchair:

CORNETT, an incapacitated woman who will be confined to a wheelchair during her life, presented some physical and psychic barriers which she meets in her day to day living. The physical problems include housing, transportation and access to buildings.

On Housing:

-- are doors wide enough to get a chair into bathrooms?--

-- are the light switches on a level that I can reach?--

-- is the stove at a level that I can handle easily without burning myself?--

-- are there steps to get into the house of apartment?---

On Transportation:

--busses that do not accommodate wheelchairs, although such vehicles are available--

--parking areas that do not provide room for getting a wheelchair in and out of an automobile--

On Access to Public Buildings:

--multiple steps make a building inaccessible to a person in a wheelchair--

--bathrooms in buildings have doors that are twenty-three inches wide - a wheelchair is usually twenty-five inches.

The psychic barriers to the handicapped person are generated by the assumption of a homogeneous population. This assumption, crucial in a society that is heterogenous, brought forth the following remark by the speaker:

-- Every time a thoughtless thing like this occurs -- in design -- it limits the freedom and independence of many, many people.

The speaker thought that, if architectural barriers were removed, the cost of which would be 1/10 of 1% of the original cost as reported by the National Commission on Architectural Barriers, attitudinal barriers would topple. For:

-- If people like myself can be totally independent,

we won't have to depend on you to pay welfare or support us, because we can go out and get jobs, become independent, and not have to live off other people -- it also raises our sense of dignity and our worth -- so, when you help us, you are helping us in many ways to become free, to become independent, and giving us a chance to contribute to society.

THE MEXICAN-AMERICAN CHICANO SCENE:

MOUNT and CHAVEZ, residents of the Mexican-American community of Los Angeles, told it like it is as a Chicano *living in the barrio.*

They criticized the service systems of education, transportation and freeway locations, police, political participation for Mexican-Americans, the concept of "progress", and the audience.

Specifically:

On Education: Approximately 57% of all school children in the community drop out before finishing high school. The speakers suspect an educational conspiracy.

MOUNT -- Many of us in our neighborhood think that it's engineered that way -- what would they do if they didn't have it? -- they would have to build another school.

On Transportation and Freeways: High speed freeways providing automobile access to the central city area act as physical barriers

*Recognition and definition of these words provide an instant test of vocabulary for readers concerned with social issues.

which divide the community. These highways are beneficial to the suburban dweller, but the urban dweller bears the social costs in addition to economic costs.

On Police Services -- MOUNT expressed dissatisfaction.

"I live in a neighborhood where a few months ago we had 350 of the Los Angeles Metro squad occupy the whole area -and I use the word consciously, "occupied" - as an occupation force for a one-week period, making sweeps going down the street."

On Political Participation -- there was general dissatisfaction because political representation is almost non-existent. CHAVEZ stated:

"In East Los Angeles we have about one quarter of a million people ---and when it comes to voting we can't elect any of our people, because we've been gerrymandered out of existence."

Disillusionment with the political process extends to institutions and organizations in both the public and the private sectors. The concept of progress manifested by large buildings in the downtown area was questioned by the speakers. They feel alienated from the decision making process, and also feel that they bear more costs than benefits of progress.

MOUNT: "There must be some control over agencies that are going to affect our lives", also

"When you hear of progress, ask 'Who's progress?' -

when you hear of profit, ask 'Who's profit?' -- and then find who are the victims. In most cases it's the urban dweller."

A moment of electrification mixed with embaressment rippled through the audience when CHAVEZ made the following observation on his perception of the behavior pattern of the engineering audience.

"My own observation is you're kinda cold, man!

I think that somewhere along the line--with that education-- you forgot to stay human --and you equate most of us as units and not human beings."

Later in his presentation he continued the theme--

"You should look at yourself once in a while.

Like I said, you look dehumanized from where I'm sitting. You are all probably very nice -- but this is the way you come across to me. And if this is the way we're going to live, we'll never make it."

The idea that the rationality of engineering training and approach to problems promotes the dehumanizing of human values was countered by STARR:

"I think we are more worried than we are unresponsive. I think he (CHAVEZ) misinterprets the stern look on our faces as being cold. We are trying to understand the problems that have been laid out... We are trying to understand what we can do about it... We're perhaps baffled and a little lost...Professionally

we do not emote with our faces, and I am not sure that he is reading us correctly."

What CHAVEZ did not appreciate is that the most outgoing element of the technical community was probably represented by the audience present!

THE FIRST MORNING DISCUSSION:

A general confusion arose in the first morning discussion about the relationship of the life styles presented and the abilities of the engineering conferees to affect these life styles.

The chairman clarified the confusion. ARAGON stated:

"We are trying to address the general question of the relationship between the capabilities and experiences of the individuals and companies represented in the audience, and the problems the panelists have presented. Where is the fit? Where is the point of interface?"

There were divergent points of view. From the audience:

One of the great difficulties -- we have an overabundance of people in meetings which are the other way around -- the engineers talk and say -- we'll now talk about cities -- what the cities need is the systems approach -- and that's so much for the cities -- how would we, as an engineering community, be able to bring our abilities to bear on your problems -- we seem incapable of finding those answers--

-- The problems of urban or poverty areas are fundamentally not the problems of the aerospace industry yet -- the effect of this meeting will be to advise us as representatives of society, rather than as members of the aerospace industry, when they can become viable problems for the aerospace industry -- for society must be prepared to really face these problems and provide resources before the industry can work on them.

-- I'm here as a representative of a local electrical power company -- we serve the community and want to be a responsible corporation citizen -- We should take this back to our top management and make suggestions as to what they can do as a responsible citizen to help alleviate some of these life styles -- to make their life, or their quality of life, more in line with what we consider the quality of life we enjoy.

GODBOULDT suggested: "If our electricity is cut off for non-payment of a bill, we have to pay a huge deposit, twenty dollars, to have it reconnected... See if your company can come up with a different method of dealing with disadvantaged communities... We do need electric services out there, and lots of times we can't afford the twenty dollars."

This suggestion was detailed by a member of the audience who suggested:

"... a cost/benefit analysis of what it really costs the power and gas and telephone companies to shut off services and renew them... You might show that it really is cheaper not to shut off peoples' services--you can disband the crews that shut it off... You are a monopoly and are operating under set rates."

And Other Points of View:

--I'm aware of one part of the problem -- you have to define the problem -- if we are to think logically about the problem we have to have good inputs in order to put the logical problem solving capability to work --you have to go into the area to really know the problem -- heads of corporations should be concerned --corporate

management only seeds -- the line engineers do the work -- the gut level comes right down to where we are, and that's what's disturbing --

--We need to be ready to consider alternative solutions to problems-- we have to consider the possibility of alternate solutions and applying one solution in one place and a different solution in another -- the best way technologically isn't necessarily the right solution to a given problem involving people.

Other comments by the panelists ranged over a variety of issues which affect the life styles of people:

GODBOULDT: "Our purpose is to inform you of what goes on in our community -- our life style. You are only familiar with your own life style."

CHAVEZ: "Anyplace I go I look to see if there are any of my people and normally I don't see them -- except as bartenders, busboys or dishwashers..."

GODBOULDT: "...black people five or six years ago were in the same position....take heart and get you plenty of matches and gasoline."

MOUNT: "...there isn't time to get into this whole Vietnam war-- but...I asked my Congressman why he could go around to peace groups and wouldn't vote against war appropriations. He said, 'We should never have gotten involved in Vietnam. We shouldn't be there. But what will happen to the economy of California if we have peace?' That's lacking imagination -- I would like to see Douglas Aircraft making aluminum transit cars, throwing up bridges and putting in tracks for a rapid transit system. You might have a hell of a time

getting Congress to appropriate money — unless, as the lady said, there are more fires. I hope we don't have to burn anything, because I live in the middle of the area..."

CHAVEZ: "One of the things I wanted to do ...was try to make you as a body more human. You get hung up on analysis and all this other stuff and you forget what its all about."

CHAVEZ: "You're all on welfareactually the government pays most of your salaries.... any time the government wants to it can cut off your subsidies--"

MOUNT: "You may have a great desire for change for the better. We have a much greater desire that you leave us alone, if you're going to mess us up."

The chairman's remarks summarized the morning session:

ARAGON: "There are two assumptions to what we are doing. The first is that the aerospace industry is serious about eventually applying technology in the solution of urban problems. The second is that, if you are not serious about it, we hope you are.... If you have a serious intent, you ought to know what you are getting into-- you ought to know the differnet life styles — the different kinds of people who are entitled to quality and fit in the public services and private goods that they buy.. If you are not serious about it, you've got to be, because there is a certain discipline to the systematic breaking down of problems and anticipation of different courses of action. You have demonstrated a great skill at this in sending people to the moon and bringing them back. It's a kind of

discipline we have not historically applied to public programs, which may be one reason why things turn out to be the opposite of what we intended them to be. We had not foreseen the human consequences — how people interact with public assistance or medical services, or whatever systems are provided on a massive scale. These systems are designed with very general publics in mind— they don't take into account the individual differences which are multiplied many times in our population.

I think, if this discussion accomplishes anything, it ought to sensitize you to the fact that not all the people who have life styles different than your own are minorities in the sense that we have come to use that word today. They aren't ethnic minorities, they are minorities in other ways, but they have problems, peculiarities and attitudes that make them like the vast bulk of us."

THE LUNCHEON SPEAKER:

Tressa Drury, the consumers' affairs editor of station KFWB, presented a version of modern life which could have been titled: "Let the Consumer Beware". Outlining a typical consumer's day, DRURY stated:

Before breakfast reads that Federal Trade Commission (FTC) says his razor blade (higher priced) is not really superior. In car on way to work hears on radio that National Highway Safety Bureau finds his car model is having steering column difficulty, and that four major tire companies are recalling thousands of tires. Then the APCD report on smog. Drinks bottled water because of gossip about what's happening to water supply. Home at night, wife tells him that TV set exploded and that company will not back up warranty. In garden to spray plants with 245T, wife rushes out to tell him that USDA has banned chemical for use by private citizens, because it's causing birth defects. National Product Safety Commission has just said that his rotary lawn mower is highly hazardous. He then pops two over-the-counter sleeping pills into mouth and is about to go to sleep when wife reads to him that these pills may possibly be dangerous.

Funny, but not funny because so close to today's truth. With our knowledge to do so many tremendous things, why are we going in reverse in the quality control of our products? Five other countries have better governmental regulation of hazardous products than the United States. Model T had front bumper which didn't dent when driven at 10 mph into a brick wall. A 1970 auto driven into a

brick wall at 10 mph would sustain \$800 worth of damage.

"Do we have planned obsolescence? Is this what the manufacturers are doing? They say no. I disagree with this. I think very definitely we have planned obsolescence"

FDA Recall Report is issued weekly. Foods, drugs, toys recalled for poison and contamination. Drugs for being super-potent, sub-potent, ineffectual, wrongly labeled, mistakenly bottled.

FDA Recall Report is not generally broadcast by the media. "When I broadcast the recall report, the manufacturer comes back to me with the idea that I am ruining his reputation. -- manufacturers are trying now to get this FDA Recall Report only an in-company thing and not released to the media."

Products should be thoroughly tested before put on market -- objection to this is that it will take years to get new products on the market--

Is consumer willing to pay added cost? I think yes. Media can play a large part in this. When meaningful information comes from FTC or FDA, it comes in very complicated form and takes Philadelphia lawyer to figure out what it is they are trying to tell you. Why can't this type of information be boiled down to 30- and 60-second spots and sent to stations as constant reminder to consumer of the things he must be aware of? "Teach them about nutrition through radio and television, teach them all the things they need to know about how to buy. And it could be done.

".....I think we have to come up with some type of a way to

guarantee the testing of all products, and I know that sounds immediately like it's going to cost the consumer millions of dollars. I'm totally for the education of the consumer and let the consumer decide which particular product he wants. But he has no way of deciding whether this product is going to explode and this one isn't"

"Senator Philip Hart's consumer subcommittee has estimated that the total amount spent for goods and services of no value in this country comes to \$174-231 billion dollars a year. There's a budget of at least \$174 billion if we can stop the waste. And I think we can."

".....As the president of the American Association for the Advancement of Science has said: 'Mankind can no longer afford to let the future happen. We shape it, or it will shape us'.... You are the very men and women to see to it that that future is a bright one for all of us...If we continue to let greed be the rule of the land, I think the future is pretty obvious, so I'm pleading with all of you today to show us the way to save ourselves."

DRURY answered questions from the audience:

Q. Crime losses versus Consumer losses. Consumer losses greater?

A. Yes. \$25 billion versus \$174 billion.

Q. Are poor more victimized by fraudulent, big-sell marketing than advantaged?

A. No. Crook will take anyone who comes. Coming in with a particular racket, it is sometimes easier to work it in a low income area. Because these people tend to be afraid of authority, they don't want to go and report misuse. At the other end the very rich don't like to report, because it admits that they were taken. You have to count on the middle income people to squawk. In poor areas advertised specials are often not available, and markets can get away with it because people are not sophisticated enough to ask for rain check or the manager. Also quality, not as good, because food stays in store longer and

cleanliness is not maintained.

Q. Can we trust anyone or anything?

A. Yes. Business overall isn't out to bilk the public, but we must have stricter enforcement to get rid of the sharp-shooters of the market place.

Q. How about cost of credit? Fraudulent?

A. Particularly, low income people are getting it right in the neck. Kids in school should be taught to read contracts and figure out actual interest. Department stores' 18% is really 36% because they figure it before deducting payment made. Fraudulent? Not as long as legislatures keep passing laws to let it be legal.

Q. Are any businessmen taking the lead for consumer protection:

A. Midas Muffler and others contribute \$2-300,000 per year to Ralph Nader's Center for Study of Responsive Law. Business is beginning to wake up. It used to deny everything. Now it hires good public relations men and hopes the nightmare will go away. But, gradually, some companies are facing the truth and finding out there are some problems they should do something about.

Q. Do you have support from consumers?

A. Where I have not found the key is moving from awareness to action. I'm called out to shock people (in speeches), but few move into action. Ralph Nader has given up looking to consumers for backing -- feels it has to be done through ombudsman group watching agencies, etc.

Q. Has there ever been a political campaign where this was an issue?

A. No. Politics is hand in hand with big business.

THE AFTERNOON WORKSHOP:

The purpose of the afternoon workshop was to discuss the life style themes presented in the morning, to attempt to determine the core issues of the life style themes, and to investigate the possible meanings of these themes to the symposium members.

LEVINE:

I came into OED in 1965 as "hot shot" economist from Rand, hoping to use economic systems analysis to find answers -- it took a couple of years to discover it didn't work-- techniques are applicable but "answers can't be imposed from the outside" -- and that's a lesson that's awfully tough for people, who with some justification think themselves to be experts, to learn--"You're just not going to tell people what to do, you're not going to know exactly what is good for people" -- in poverty program, or any program with people, expertise is necessary -- not advocate of idea that all wisdom emanates from slums -- but expertise does not suffice -- the process is important--

-- I hope you're representative of the aerospace industry -- there seems to be a cadre of people who get sent to the "social good" kinds of things, while the mainstream of aerospace people are off trying to make a profit or build airplanes, missiles etc.-- some people get hired to go to good meetings and do good things, and if that is the case (and I think it is to some extent), then the people here aren't really representative of aerospace, and this in itself raises a problem --one precept I would go by, and this goes for any business, is that if things are going to get done for social good,

they are going to get done for profit -- and the people who ought to be at meetings like this are the profit makers, not the social do-gooders---

--How do you get things done for profit? -- attempts in aerospace to enter into soft systems analysis business have not panned out-- what aerospace should be qualified to do is go into hard systems analysis --transportation, pollution -- those with a real engineering aspect to them --maybe there's a profit there, maybe there isn't -- "If there is a profit there, it's up to government in many ways to provide the market that causes the possibility of a profit" --government has made only feeble gestures-- if government can provide market something like the market provided for aerospace machinery over the last two decades, there may be a profit in it for aerospace-- not the case now, and for this reason the prospect isn't great now--

-- There are urban problems amenable to this industry --market may not be there yet -- "In my mind the kind of work should be hardware oriented within at least strong social constraints"-- to a much greater degree than any of us has considered in hardware analysis before.

CHEESBORD:

I disagree somewhat with Levine -- much of aerospace operation is management of people -- of 25 billion dollars for man on moon project only 2 or 3 billion was in hardware -- it's mostly salaries, etc. for people -- coordination of people in project is what's

significant -- missing factor in solving of social problems is that we have no centralized core of management --government and political system served well as centralized core for agrarian society, but today we're technological -- and technology is creating most of the problems that we have -- we no longer have a management group that can handle this -- we have fragmented management, i.e. government agencies, private agencies, individuals working at it --

-- We are a fantastic pool of talent that can be used -- the way of thinking is what's important -- the fantastic thing about this morning's session was being presented with real people saying, "Minority people like myself -- we're no different, we breathe, eat, sleep, and try to do the same things, except that we are placed in a position in society that prevents us from, in fact, making the same mistakes and gaining the same goods, the same advantages, that the majority does" --you can assume that basically the minority segment of the population has a problem --

-- First problem is to find the problem, bigger problem is to define it-- "This is where this coordinated, simultaneous, problem-solving ability of systems approach is the potential salvation of the situation -- it is to actually define the problem.'

"A society which can get torn down by minorities - and it's rather stupid, I think, that 20% of the population can threaten, coerce, and destroy a majority position - it makes no sense. And yet, it's being done, because we don't consider them. It's our last area of growth in the GNP..... We need to utilize this potential,

50-60,000,000 people non-productive. Let's get this 20% increase in GNP. No reason why it can't be done. You have to define the problem in a way that you can reduce it to the language you understand for systematic solution."

LUEVANO:

To start we have to decide what the level of commitment is to be -- earlier it was the quality of products and services -- I think that more fundamental is the quality of life -- that decision, that resolution of the question, gives you some direction in terms of how you are going to behave in respect to those people who are unequal in opportunity, or unable to participate in the opportunity-- that gets you into some decision on investment, public and private --

--One of the missing elements in this whole problem is political commitment on the part of elected officials throughout the U.S. -- that's not the same as saying that nothing has been done, or that nothing has happened, but rather that there have been no large-scale permanent commitments made to the process of improving the lot, the lives, of people who are poor -- the next important element to consider, separate from the terrible problems of designing the proposal and the solution that you propose to provide, is the question that Levine raised - the question of participation for people who don't participate, for people whose voices are very rarely called into action --one of the issues of the quality of life is being able to have a voice, or express an opinion --

--"Ideas of human relations are not unique to dealing with people who are poor, who speak a different language, or are

handicapped, although the characteristics may be somewhat different"---

-- All of this suggests differential treatment, because some people in society not as well favored as others -- if you're going to have quality of life, you have to bring as many people as possible up to point where they experience quality --if you discount a large part of population, this part has an enormous capability for destroying the balance of population -- if you were to do it on no other basis than self-interest, you would do it -- this is the general character of the problem which demands some solution.

GOE:

I'm torn between despondency and desire to maintain a feeling of optimism --

-- The growth of cities is haphazard -- same process being repeated now -- what stands in way of City Hall, State, and U.S. acting when obvious technological requirements are available? -- the relationship between the city as it functions and technology as it has been growing is a time lag of 5 to 10 years --

-- You must understand and appreciate the political complexity-- the answers are not systems, in an aerospace sense, because people don't conform to systems--

In Antelope Valley*, with all the projections -- airport, population, etc. -- no one has done any conceptual thinking about sanitation -- what about electricity? --Antelope Valley can develop willy-nilly, and with non-think, just as Los Angeles did -- same

* a projected growth area, north of Los Angeles

kind of growth pattern can continue ad nauseum, or it can be changed some way --

-- "How can you make it change as a company? By delivering products that take into account that in the political system the bodies all lay in twelve directions, and have independent attitudes about why something is relevant and necessary -- don't think it's going to be easy to solve social problems -- be very aware of the people factor, and that people don't fit nicely into system schemes."

The speakers each presented a particular point of view. The most contrasting points of views were expressed by Levine and Cheesboro. The former insisted that an improvement in the systems could be best accomplished by micro solutions, while the latter favored a massive and holistic solution to the problems discussed. He was optimistic and displayed the true spirit of the technologist.

CHEESBORO:

Problem is big, but so were other problems we've solved -- I can survive in this society by believing there is no such thing as "I can't do" -- do something in advance, rather than when it's on top of you -- massive, simultaneous solutions required -- it's the only way to do it -- and technologists are only experienced people to do it -- they have a track record of taking on the impossible and doing it.

LEVINE wasn't that optimistic:

It's difficult to be impressed by aerospace management -- if you gave me the same amount of money, related to the size of the

problem, that has been applied to getting to the moon or defense, and the same criteria of waste, I could solve urban poverty or anything else, and it would simply be cut and try, trial and error, redundant systems, backup, etc. -- all the things that go into defense and space programs -- but you're not going to get that, and you know those kinds of criteria are not going to be applied to the kinds of problems we're talking about now -- my ways are not the organized systems planning ways, except in the broadest sense -- I think that very little pieces operating independently is the only way a system as large as what we're talking about can work -- not working well that way now -- need incentive ways to get a lot of people to work in desired directions, rather than laid out systems-- because of satisfaction, self-interest in it -- incentive created by government to move in socially desired directions -- faults are political ones -- we need different kinds of political mechanism-- don't know how to set up -- but it must be possible -- if it involves planning, it is different kind of planning than aerospace systems type.

There was concern that the approach advocated had brought us to the current state of crisis. How could the consequences, intended and unintended, of so many individual actions be anticipated? What would be the final result or product? How would you reconcile that approach with some objectives?

LEVINE:

I'm talking about change in incrementalism where it's guided

by incentives -- example - free market created depressions -- government control over depressions and inflation by changing government spending -- changed incentives -- put money in to avoid a lot of people being fired -- guided incentives -- we are looking for government programs to change incentives in sociologic operations -- what I can do is say which direction is better than another direction and guide in that direction without knowing an ultimate objective, because you never get to where you expect to anyhow -- I don't have to say in terms of poverty that I want to end up with a certain kind of distribution -- all I have to say is that there are too many people at the bottom too far from the top now -- want to close this gap -- don't have to know how far to close it to start closing it -- there is something to do now--

Goe favored a form of historically evolutionary concept in which NO THINK would be replaced by NEW THINK, with people considerations being foremost in the planning of public or private systems. He pointed out that the California State Highway Department is now planning so as not to create neighborhood barriers in freeway construction, and is attempting to facilitate the flow of community traffic rather than just passing through a community. A good example of NEW THINK.

The meeting closed with following question to the participants:

ARAGON:

"Do you find any role for yourselves, do you see any place where your skills and background can be used? Any relevance you can

see for your skills, your companies?"

From the audience:

We deal in concepts, we deal in hardware -- you have presented some problems that require some mulling over -- as I look at it, I think the hardware output is way down the line -- there is a potential for planning, a potential for systems analysis, a potential for trying to marry our language with your language -- a lot of ground work to be done, more interfacing to do. -- this may very well be the first step toward getting the intermix we need -- your question can't be answered after just one day of this --

--We're more sophisticated as an industry -- we're now asking questions about the total social complex which we never asked before -- I think we are making progress, and this meeting is part of the educational experience of the industry -- in finding out what it is the broad customer is now looking for -- I think we are making a lot of progress -- as soon as the public begins to put values on these things, the public will be willing to pay for it -- this is a slow process, but we're right in the midst of that process now.

SERVICES TO BE RENDERED:

The second day's meeting was concerned with three representative services: Services to "skid row" residents; Mental health services in the central city; Educational services, highlighting the changing mode of high school education. The presentations should be considered in their substantive context, but also with the thought of how one implements or creates change.

The previous day the symposium discovered that times had changed and people had become more sophisticated about their problems. As the chairman stated:

COHEN:

"The problem in the social area today is around systems of delivery of services....Social problems no longer have a single cause and effect relationship. Any social problem you grab hold of consists of a profile of factors, and we need multiple approaches, inter-disciplinary approaches, comprehensive approaches....As this begins to develop, you discover resistances, because most of our institutions emerged out of an earlier period of need, a period when knowledge was fragmented. We went into depth in a specialized way, and the institutions themselves which met needs in the earlier period may tend to become barriers, because you're into the game of who gives up what, if you're going to go into a comprehensive approach. Attitudes of people are as much facts as some of the other facts that you grab hold of."

The likelihood of transferring technology to environment

depends upon three factors.

1. The perceived long-term advantage of worth of the innovation to the prospective user - the question of the user may spell out a little bit differently than it does in an industrial complex. Is the user the policy maker, the public official, elected official, staff involved, or is he the actual user of the service?
2. The ease of accommodation of the innovation within the user's program or organization - this is a question of organizational linkage. What do you know of the system to which you are trying to link your ideas? For example, COHEN says that "we as a nation are guilty of conceptual imperialism." Education, health, and welfare fields are similarly culture-bound, even within the United States. Again quoting COHEN, "Availability of services does not necessarily mean usability." The tendency in the social welfare field to transfer middle-class values over into low income areas often does not work at all.
3. The amount of risk involved in adapting and adopting the innovation - the question is who gains? who loses?

PROVIDING SERVICES FOR SKID ROW RESIDENTS:

PIXLEY and MENAR presented the not often considered plight of people who live in "skid row" areas. The background of skid row was first presented and this was followed by an implementation plan.

PIXLEY:

When assigned to area assumed that skid row was all drunks, B-girls, panhandlers, etc. --found that people lived there because couldn't afford to live anyplace else -- about 40-50% drunks, a large part just poor people--

-- Found problems of skid row more complex than social workers, police chief, fire chief realized -- urban redevelopment getting started, and businessmen wanted to convert skid row into "gem of downtown business place" -- get rid of bums -- Building Safety Department of city had plan to condemn buildings -- legal process to get rid of skid row -- their word for what they had in mind was "roust"-- where will they go? -- probably to another area in search of low cost housing -- by 1965 rousting had taken place, but skid row guys were still around, were still poor -- missions were still there, and businessmen had decided it was missions that made skid row, enticed bums to come to area -- not altogether false, but real causes are poverty and low cost housing--

--When you are arranging things for people you must consult them-- hard to do on skid row, because many of these people have resigned from society -- you are planning for tomorrow they won't think about.

The presentation was turned over to Bob Menar, one of two

UCLA students who have done a realistic study and come up with a plan --whether it will be given resources for development remains to be seen.

The implementation plan. MENAR:

Decided to study power groups around skid row and found:

1) Downtown business area borders it on west, industrial area borders it on east -- two blocks away is Spring Street, the Wall Street of Los Angeles --downtown business powers always interested in getting rid of skid row -- detriment to business. 2) Social service groups-- they are "the gatekeepers" -- missions do perpetuate skid row problems, because they are available to take care of indigents who gravitate there-- and go from one mission to another perpetually, without seeking jobs. 3) Planners -- Community Redevelopment Agency and Los Angeles City Planning Department -- they are neutral regarding changes in skid row and respond to pressure from both business and community -- skid row people themselves totally excluded from all planning committees -- absolutely no power --

-- Expected social agencies (gatekeepers and official welfare centers) to have most expertise, be most helpful -- actually businessmen more approachable, because of their determination to get rid of skid row.

--Concerned with how to create a viable relocation for skid row people, also plan a service delivery system into new area -- and solve problem of businessman -- present social agencies could be involved or completely eliminated--

--Decided to opt for completely new system to deal with indigent

male-- convince businessmen to use influence at City Hall and put up money to build a multi-purpose rehabilitation center.

--Present service system so fragmented it's actually nonfunctional --services should be available in close proximity, preferably in one building--

-- Proposed model: Multi-dimensional professional involvement -- intake, diagnostic and assignment unit, medical and psychological unit, domicilliary unit (sleep), social service unit, employment unit, support unit.

The resolution of the dilemma of a skid row involves different attitudes that, in this case, were based on different beliefs and value systems. The task of implementation required that these divergent attitudes be reconciled.

MENAR: "Skid row males can be rehabilitated. Three hundred after training get jobs....The hard core indigent male is probably so far gone he can't be rehabilitated; therefore we feel that it is society's responsibility to maintain him in the most humanitarian way possible."

But consider the profit motivation of the business community-- how is this to be reconciled? -- and the attitude of the missions, the "gatekeepers", whose belief is, to quote MENAR, "the saving of souls on skid row is God's work -- they know God's work -- and no one else knows it."

Here is a real challenge for any person wishing to implement change.

MENTAL HEALTH SERVICES IN THE CENTRAL CITY:

All levels of government, but primarily the Federal, are giving serious efforts to the establishment of mental health centers. In the past eight years about 240 centers of various kinds have been established.

The first speaker outlined the system of mental health.

PETERSON:

The self-referral process applies almost exclusively to physical problems -- not to mental and emotional problems -- last problem we are going to lick is teaching people how to live with each other -- not knowing is the basis for mental illness -- how do we develop a system of care in the health field -- how do we get at this so that people can get help when they need it, where they need it?--

-- The system is aimed at protecting person defined as mentally disordered --taking people out of "warehouses" (mental institutions) and putting them back in communities with supportive services -- using all systems operating to attack a problem at incipient and later stages --

--Several systems operating: Public services; Private practice; Group practice; Veterans' Administration, Union programs; Group systems supported by associations, Insurance programs.

The following speaker, a black psychiatrist and director of a mental health clinic in a ghetto area of central Los Angeles, elaborated the concept of mental health.

HARRIS:

After Watts "revolution" Federal government decided everybody there was crazy, so sent psychiatrists in to "redefine the problems" into mental health problems -- my contention is that black people are in a worse condition now than they were in the time of slavery-- breach is becoming wider and wider -- participation in democracy is becoming less and less--

--Center founded in 1967 provides five basic services: In-patient; Out-patient; Partial hospitalization (day treatment center); Consultation education; 24-hour psychiatric emergency service; Consultation-education service is to interpret the community to institutions that serve the community--schools, probation, parole, welfare, etc.--

"...What we are asking for as far as the community is concerned is being able to control the institutions that control us"--

Agencies reluctant to serve people because of different view of how services should be rendered -- when people resent type of services offered, agencies get uptight and pass more rules and laws-- "The young people of the community are not about to go through the same things that their parents have gone through"--

--Institutions are failing us -- we need people like you to come together and try to solve some of the problems of our nation, or "you're going to be living in discomfort the same as we're living in discomfort, not the discomfort that we are experiencing, but a type of discomfort that I don't think you will be able to tolerate"-- the repressions we experience always spin off into the majority community -- "Understand that the black people don't want

to destroy the nation, they just want to black-people it"--

--"You can't sit back any longer and allow other people to do your job. You have a job to do yourself." Part of that job is making the so-called idea and ideals of democracy a working thing for everybody, not just yourselves." Interface of problem really means interdigitation of the problems where you all come together to try to solve community problems -- and you can't solve them at this Hotel -- you have to come into our area and look at it--

-- My definition of mental health is anything that makes my community healthy, makes the people in my community feel that they are part of something -- anything that dispels apathy and hopelessness is mental health, as far as I'm concerned -- I want to treat the whole environment, and I think the environment is sick -- "You are responsible for that, because you are constantly putting in people who lie to you about the conditions in the inner city"--

-- You have to get down there and see what it's really like-- and what you can do about it -- "You're going to be met with...years of strong feelings against white people -- just expect that. Some people have to go through the rhetoric of denouncing whites, slavery, etc., before they can get down to business...Weather the rhetoric, then say, 'OK, I might be responsible for slavery, raping your mothers, etc., but what can I do now to help you?'"

In response to a question that asked what things could the assembled technical participants do to assist in the rendering of mental health services, the speaker replied:

HARRIS: "If I were a sensitive engineer... I would come in and figure out how you can improve the environment the people are living in...There has to be a new way in which government and institutions are looking at the inner city...Come down -- look --do."

The principal of a high school which is undergoing a transition from an all white to an integrated studentbody spoke on the changing process of high school education:

SCHWARTZ:

Until five years ago our high school considered best on west coast-- 95% of graduates to best colleges -- Caucasian, Jewish, upper middle class -- people finagled to get kids into the school-- when few black faces appeared, things began to change -- people worried about economic values, academic standards -- began to run away to other neighborhoods and schools -- three years ago 8% black, September 1969, 20% black -- 5% of black kids began to "act out" -- vandalism, fights, extortion, etc. -- whites went through drug scene and now sell stuff to blacks -- no longer users, pushers-- we (administrators and concerned parents) had no background, expertise to deal with this, no one to call on-- school system had experienced same thing at other schools -- no school in U.S. successful in coping with this, or in keeping a school integrated--

--University of California at Los Angeles (UCLA) proposed a series of evening workshops with representative students, parents, teachers and administrators:

-- Met in parents' homes evenings -- UCLA supplied experts in

field of group relationships-- meetings began October 1969 --
first four or five sessions spun wheels -- rhetoric, etc.--
incidents continued at school--

-- About fourth meeting we ~~was~~ said, "Let's stop the traditional approach to this thing. Let's turn the school over to the students, meaningfully, honestly, How would they solve the problems of high school? It's their school. It's for them."

-- Held convocation -- 3,000 youngsters separated into groups of twenty-five -- outside leaders from black community, UCLA, chicano area, all social agencies -- lots of do-gooders, PTAers, but we did it-- spent whole day talking about black and white, education -- "What is it all about, what are you here for, what do you want -- good grammar or good living? What can we do to make this place a liveable place, and all of us get something out of it?"--

-- In each group just kids, no teachers, with one trained person instructed not to interfere, just keep the kids zeroed in on problems-- at first break (10:28 a.m.) new spirit noticeable--and new behavior-- kids mingled and talked at hash lines, and white kids invaded "Soul City" part of campus --it was so good, we probably would have been better off to just let it go there -- let the kids continue outside-- but being structured traditionalists, twenty minutes later we rang bell, and kids went back to sessions--

--High school changed completely --vandalism way down, extortion at a minimum, fires stopped -- but here's where amateurs need expertise-- couldn't stop there, because parents involved -- kids have to come

home at night-- had a parent convocation on March 15 -- 2,000 parents divided into small groups -- outside experts -- two emphases: -- how are we going to live together? -- what do we want in terms of education for youngsters?--

--High school had to move, change procedures -- February, 1970, we did the following:

1. Black studies with team teaching.
2. Increased adult sponsorship of BSU --got rid of guy kids didn't want (administrative appointment!) and brought in people kids wanted
3. Took kids out of classes for human relations course
4. Black teachers in administrative offices
5. Noon rap sessions -- black and white, voluntarily
6. Luncheon for 25 black kids who were leaders (not student government types, but kids who had followers) --even though suspicious they came, and for three hours went at it freely on their own
7. Weekend for 65 kids, chicano, white, black -- it was at Camarillo State Hospital simply because facilities available, but resulted (serendipity?) in some of conferees getting interested in problems of kids there and now working as volunteers there
8. 15 new courses added: Anthropology, Psychology, Philosophy, American Cultural Minorities, Asian Studies, Sociology, Bible Studies, Mass Media, others.

--Open forum once a week at school--uncensored -- kids can talk about anything--

--Distinguished Speakers program -- kids invite any speaker they wish-- Voluntary, last period of day -- have had Black Panther, etc.--

-- School newspaper is non-censored--

--Tutorial clinics--teachers volunteer time.

--Revising student government constitution so that it isn't "sandbox", but truly student government --

--Flexible class schedule starting in September.

THE MORNING DISCUSSION:

The chairman of the meeting pointed to the fact that the meeting always veered to social context, value structures, and societal beliefs.

COHEN:

"I think that in a sense we are pointing up the problem by a shift in this direction. I think we are trying to give you this attitudinal value flavor....that it isn't enough to think purely in the technical terms of how a system will work, or what technology can be utilized, without relating it to this social context."

The members of the symposium seemed to realize that what the principal of the high school had done was not easy. As we had seen, the task of the implementer is never easy. The views of this high school principal might serve as a model of the dedication of one man to get things done. As SCHWARTZ said:

"I'm going to do my thing based on what I think is relevant education in today's and tomorrow's society...most United States high school have not kept up with the society they exist to serve... learning remains a mechanical rather than a personal experience... the way we are teaching in high school leaves a lot to be desired."

A different view of a social phenomena was dramatically illustrated when Schwartz remarked that he wished to recruit twenty-five black teacher for the high school.

HARRIS: I want minority recruitment to fail, because these teachers are needed more in concentrated ghetto areas-- middle-class blacks are vanguard--best black teachers and administrators should be in ghetto schools-- "What I want to see happen is that all the

"super niggers" stay in the black community...brain drain has always started in the ghetto. The best have always been integrated into society and lost. We need them back in the black community now."

Services to be rendered rests on value judgment. The symposium often returned to a concept of social cost and social profit. The latter is always lacking. We speak of public spending and business investments. The combination social costs and social benefits have not entered into our national accounting. But these techniques are contingent on attitudes and values. As the chairman stated:

COHEN: This value question is complicated -- we have many, many value problems that you have to face --I think that, as we start into the post-Industrial Revolution there is real question whether the puritan values which were so helpful in relation to the Industrial Revolution are the same set of values that are going to work in the next go-around --the fact that our whole emphasis on the individualistic, competitive, etc. has made it almost impossible to develop the collective sense that's necessary to deal with some of the problems we face today.

THE LUNCHEON SPEAKER:

This days' speaker, the Assistant Secretary for Research and Technology of the Department of Housing and Urban Development (HUD), was the only formally trained technologist to address the conference. The speaker, trained as an engineer, was associated with the National Aeronautics and Space Administration and is now concerned with Project Breakthrough, and effort on the part of HUD to transfer technology to urban housing. The speaker reiterated some of the themes of the conference and then described Project Breakthrough.

FINGER thinks that the problems of the city today are so profoundly complex and of such immediate need that no one wants to wait to apply systematic solutions. Although the goal of the 1939 Housing Act was to "provide every American with a good home", and this has been reaffirmed in all subsequent housing acts, the country has not yet accomplished the goal.

"In this technological age the successes that we are having in technology are the very things that have pointed up some of the failures we are having on the domestic scene."

He agrees that urban renewal and highway projects of the past have generated some of the present day urban problems, and foresees the changing of national priorities to allocating greater resources to human rather than defense and space programs. He cautioned that in switching priorities both the intended and unintended costs and benefits might be quite different than initially expected.

He pointed out that the long planning horizon in certain urban

problems builds restraints in operationalizing any public system. Citing that a typical urban renewal project averages from nine to eleven years — more time than it took to go to the moon — he noted that such a time span decreases the incentives of local officials who are judged and elected on short term results. He feels that the role of the Federal government should be to provide these long range incentives.

Although he was initially skeptical about the potential contribution of the aerospace industry to urban problems, he is "now convinced that many of the aerospace techniques are applicable to municipal operations." He feels that many techniques of the industry tend to be long range activities when applied to municipal operations. He cited the need for developing data on the properties of all functions of a city and feels "that social indicators are inevitably going to be measured by physical situations." As an "engineer with a heart" he cautioned the conferees that "...in any analysis you run the data you collect, the trends you follow, must include an examination to determine what the social characteristics are that have caused those basic measurable data."

He foresees employment opportunity for many kinds of people whose life styles had been discussed on the previous day. "If we really went about it, we would have a lot of effort and money going into it, and I think many of the people we are talking about would have a role in that process."

The speaker then described Project Breakthrough, which is an

effort of HUD to apply technology, in its broadest conceptual sense, to urban housing.

FINGER:

Local communities not organized to make progress in process by which we provide housing for all people --fragmented into separate jurisdictions--8,000 different housing code regulations--zoning restrictions prevent housing for low and moderate income families in many suburban areas--have to attack this whole problem--cannot attack any one piece of it, because we would not make any progress--no company would invest in improvement of process--no local community can do it--leadership of Federal government was necessary--and that's what we took on in Operation Breakthrough--

--600-odd proposals from industry --twenty-two full housing systems selected--in place of existing specification code arrangements a process of testing was developed for performance evaluation--the process cannot be industrialized and capital invested unless there is potential for significant market--aggregate the market and encourage volume ordering by removing local and state government restraints--

--Existing inspection procedures couldn't produce industrialized housing--developed model legislation for states providing plant inspection to be accepted anywhere in state--

--Housing to be produced with everything installed, with final hookup to be made at site--

--Union labor's reaction? Mixed --signed agreements with unions whereby workers will build housing at plants at industrial wage rates, rather than on-site construction rates--factory construction craft

lines will be crossed--trying to get states to reassert authority regarding building codes, to prevent local communities from making themselves homogeneous--

--We want to develop model residential communities --intent is to have income spread in each site--goal is to advance whole housing business--we are after mixed communities --racially and economically mixed--negative reaction of suburbanites--have to break through restrictions that have made suburban attitudes that way--

"I think there is a need for the personal involvement....I think it's going to be probably difficult unless there's a significant increase in investment....transfer from defense expenditure directly into city activities....Problems today are frequently with our built-in institutions, for we do have to institutionalize the process by which we correct problems, and try to build flexible and dynamic institutions. ...I hope that we can really find a way of making this transfer in resources, in technical competence, so that we can end up with less of the problem that we now face."

Project Breakthrough illustrates how the people problem is mixed with the technology problem. The early Federal Housing Authority (FHA) appraisal manuals had precautions against racial and economic discrimination. In present training of appraisers all the prejudices are still present. In reply to the often expressed complaint, "You're trying to change the facts of life," the speaker stated:

FINGER:

--remember the "facts" are based on attitudes of the past --

we've got to try to change those attitudes --this is a tough problem --probably the toughest one we face --but it's fundamental to succeeding --we must face the issue and start moving people in a direction that will accept a variety of people.

THE RENDERING OF SERVICES:

The last day of the conference heard public administrators and politicians speak on the difficulties and problems of political institutions and the political process.

For each governmental unit -- city, county, region-- a politician and a professional in government administration spoke as a team.

BY THE CITY:

The city manager of Claremont, California, and a councilman of the city of Inglewood, California, reviewed the major difficulties facing medium size cities.

After stating that cities still have the potential for the good life, and that cities are the focal points of the culture where jobs, excitement, diversion and stimulation are ever present, the speaker categorized the problems of the cities.

MULROONEY:

A five way classification: Environmental, People, Governmental, Physical, Monetary -- my judgment is that your expertise could be most helpful in Environmental and Physical problems, but I hope that there might be applications of technology in solving people and governmental problems as well--

Environmental: Negative and positive features --negative are air pollution, noise pollution, water pollution, visual pollution, pollution of the land, pesticides, population control--

--Positive side of environmental question --opportunities in field of urban beautification, open space acquisition and preservation --and what you might call improving the quality of life.

People: How do we deal with mass civil disobedience -- the drug issue--the greatest of all, racism --crime, both the home grown variety and organized crime--manpower training --health problems, health delivery systems--the whole welfare mess --the alienation of today's youth--problem of citizen participation--
"...as many of our problems are increasingly kicked upstairs for solution, the Federal government which has most of the money enters more and more into urban problem solving, the process gets more and more removed from the citizenry. This can be sort of self-defeating, because it builds up many of the frustrations it was designed to resolve"--

--Finally, I would add the mood of the times --prevailing pessimism--"Voting public has not only a pessimistic mood, but a fearful one, a loss of confidence in government."

Government: In itself a problem --people problems have come to fore and have to struggle with established programs for a piece of the budgetary action --"Go to any city in the country and see what percentage of the budget is spent working with alienated youth versus the percent spent on fire protection, or contrast the amount spent on problems of racism with the amount spent on collecting garbage...You'll soon see that the people problems are the have-nots of municipal budgeting"--

--High taxes --the problem is that the tax systems don't put it back where it is needed --there are inequities in the tax systems--

--Problem of inter-governmental relations--we must begin by

correcting the imbalance of funds between the various levels of government--right now it's a case of "we've got the problems and they've got the money."

Physical: Three problems where your expertise can be of great assistance -- low cost housing, rapid transit, location of intercontinental airports.

Money: Component of first four problems, but so pervasive ranks as problem itself --"I am sure that, if you put your mind to it, you gentlemen can solve air pollution problems, can build quieter trucks, can purify our water, can build a house that a man earning \$7,000/year can buy, can build an effective mass rapid transit system. The technology is there, but somebody is going to have to pay you to do it, and then somebody is going to have to build it. And most often the money isn't there when it's needed, and in the quantity in which it is needed. This, of course, goes back to the matter of changing and reordering our national priorities."

PIERSON agreed that many of the problems of Claremont, discussed by the previous speaker, were the same problems that couldn't be solved in his own city of Inglewood.

The city of Inglewood is adjacent to Los Angeles International Airport and in addition to all the usual city problems, is plagued with noise pollution. PIERSON was optimistic about the resolution of these problems. Expecting no magical answers, but with a firm faith in technology he stated:

"Our civilization has come too far to throw in the towel now

over things like pollution, integration, and redevelopment. I'm not worried about finding answers once we really start looking...I know that people with your talents, talents that have been expended creating the technological age in which we live, are now searching for answers to other problems. You are now joining the search for the answer to community problems..I welcome you, and I look forward to the results of your help..."

BY THE COUNTY:

WILL, a professional public administrator, viewed the "super-county" of Los Angeles in contrast to CONLAN, supervisor of Ventura County, which is quite different from Los Angeles County in population, urbanization, number of governmental jurisdictions, etc.

WILL:

Los Angeles County --not typical of all counties --big, urban county, over 7 million people, tremendous diversity of political and social viewpoint --more comparable to large urban municipalities than to many counties--77 cities--

--Counties called invisible government on local scene --middle position between state and municipal governments --counties provide to areas not included in cities all the services cities provide residents--

--Largest part of county function is local administration of state programs --services considered invisible --major areas of responsibility: Welfare; Health and Hospitals: Courts, custody and certain area-wide law enforcement functions--

--Welfare comprises about 45% of total county budget--842,000

people are eligible --1 out of 9 people --general policy set at Federal levels by statute and turned over to states for administration-- recipients phase is turned over to counties --county operates so-called "inferior court" system consisting of municipal and superior courts, courts of original jurisdiction --about 282,000 cases filed in superior courts, 4½ million cases filed in municipal courts --operates county jail system--daily jail population is about 11,500 people in custody daily--this amounts to 10.9% of county budget --counties operate hospital systems in accordance with state and federal laws--

--These three functions (Welfare, Courts & Jails, Health and Hospitals) consume about 74% of county budget--other functions are parks, minor school system, certification of teachers, record-keeping, conducting elections--

--Our problems of implementation of cures and corrective measures are no different than any other government agency--county operates with someone else's authority --this is a great cop out for amny county officials --point finger at state capital and shrug off taking creative responsibility --"The county is the most vulnerable, yet it has, in my opinion, the greatest promise to move into some of these critical problems of society and solve them. It is a regional organization just by its boundaries, particularly in an urban area. It is the organization which can assist most strongly in regional organizations. It has great promise to do it, if the public can understand what the county is supposed to do, and the county organization itself can make the transition to a very positive and, hopefully, a very productive solution to the problems."

CONLAN, from the perspective of a former businessman, saw the structure of government in the following way:

All of what we're discussing -- environment, housing, welfare, criminal justice system, transportation, public health, mental health-- cannot be solved at any one level of government--it requires a tremendous amount of cooperation within the levels of government--without the intermingling and cooperation of all elected officials we're not going to solve any of your problems--it depends upon the interest of your local officials --I am appalled at the lack of knowledge on the part of many in our business community as to obligations and responsibilities of local officials. "Responsibility for the problems we're involved in today rests on all our shoulders."

--There is need for new form of government at local level -- because of impatience we may create the same problems at regional level that we now have at local level, with proliferation of agencies concerned with one particular problem --not looking at overall picture--

--We're attempting, in Ventura County, to form what we like to call an intergovernmental planning council --county planning on a general basis would be done by representatives of all of the cities-- other districts would be included--school districts, hospital districts, water, sanitation --these people must all be involved in the planning process --we have an opportunity, at this stage of development in Ventura County, to truly affect the quality of life for the people who live there now and will live there in the future --we will make the same mistakes that other counties have already made, unless we in fact involve ourselves in this kind of planning agency --we can

take into consideration the environmental aspects of any kind of project that will be coming to the county --if we preserve a certain number of acres in agricultural land, determine the regional parks we want, the green-belt areas --this will have a constricting effect as far as the urbanization of the cities are concerned --if cities are going to accommodate a certain number of people, they will do it within a certain area --it may cause a change in attitudes regarding densities --if one of our cities attracts industry and doesn't provide housing for them within what I would like to call a balanced plan, those people will aggravate already serious problems of overcrowded conditions, high tax rates in the school districts, etc.-- we have many exciting ideas --we hope that we can bring them about in our county.

THE REGION

Both speakers advocated a regional form of government organization which could cope with many of the problems of the cities discussed during the day. The first speaker, a councilman for El Cajon, California, feels that many issues facing cities will be resolved in the critical decisions affecting physical development.

BROWN:

"When you clear away all the smokescreens and rhetoric, we find that the real arguments occur over who decides. That's the critical issue. Who decides the what, how, where, and when of physical development?"

Zoning at best is an interim measure in control of land use --- zoning has no permanence --- it gives way before economic and political

pressures --the true permanence of land use is determined by physical systems--

--These decisions must be made on regional basis--who decides on regional issues?--who decides what is a regional issue?--where sewers will go?--where transportation will go?--transportation is a key element --areas that will never develop if there is no transportation --also water, sewer, and other public services--who's going to make decisions?--

--We're not going to change our government form so radically as to abolish cities and counties --but we need to compromise somewhere--regional associations of governments are logical groups to do this --decisions must be made by regional organization, with cities and counties giving up some of their present authority.

The next speaker, the Executive Director of regional organization, The Southern California Association of Governments (SCAG), one of five hundred regional agencies in the country, described his organization and some of the pros and cons of regional organizations.

REMY:

SCAG — six counties in Southern California, 10½-11 million people, 38,000 square miles, 105 cities in organization --responsibilities varied — regional planning agency, advisory forum, mutual exchange of information among cities and counties, adviser on regional problems --only binding authority is review and comment on federal grants (Regional agency required for eligibility for a number of federal programs) --regional organization has been looked upon with suspicion by far right and far left--fear is loss of local determination and

decision making --cities and counties have reconciled themselves to the fact that there will be a regional agency whose decisions are binding --League of California Cities and Supervisors' Association have drafted joint policy statement mandating regions on a state basis, seeking legislation giving regions regulatory powers in specified areas and, where the need arises, taxing powers --

--SCAG is attempting to provide series of alternative growth patterns to constituent members --includes a study of population densities which will result from maintaining certain types of open spaces --the effect of intergrated transportation on land use --pre-sent effort is superficial--moving into area of environmental plan-ning--preparing for federal government a master plan of water and sewer facilities --if you put in these facilities, you are making rational decision about growth of an area --this will be followed by master plan for open space areas. --

--We are going to have regional agencies and regional decisions-- we hope to maintain visibility and access by locally elected off-icials -- our present organization is made up of locally elected officials --

--Your role in a regional organization? --in no one place do you find significant sums of money for research and development -- how can we utilize your expertise in research and development, if there isn't available money in any local government jurisdiction?-- if we get into revenue sharing, block grant approach there will be greater possibility for research and deve'opment money --cities and counties don't have monies to unleash your talents.

--Devote your time to citizen committees, community action groups, and be concerned with what local and regional organizations are doing --devote some of your skills in that area --for big contract necessary to focus attention on an issue you will have to look to large jurisdictions -- regional, state -- to find money --it will not come from cities and counties.

With the mothers' milk of politics and research and development rejected by the speaker, the symposium discussed issues presented by the speakers.

THE MORNING DISCUSSION:

Three distinct but interrelated themes were discussed:

1. Past and future planning for noise pollution and abatement
2. The extent of the activities of SCAG, the regional agency
3. The real problem of where money is to come from to resolve urban problems.

It has been possible for the past twenty years to forecast the development of jet aircraft, air transportation, and airport expansion. STARR asked, "What did Inglewood do in the planning area to anticipate today's noise problems?...Also, I don't think the noise problem will be solved in ten years, because it is a result of trade-offs, and I don't see your level of government involved in the trade-offs."

PIERSON: "What did our community do? Nothing. I dispute your second point, because one of the reasons we did nothing was that in 1959 -for several years prior to that officials in Inglewood were told that jet aircraft would not be noisier than propeller-driven aircraft....Inglewood was instrumental in formation of NOISE (National Organization to Insure a Sound Environment), concentrating first on jet noise, which will hire a full-time lobbyist in Washington to get some muscle in legislation. All it takes in national legislation to require reasonable decible levels. NASA studies indicate that the existing jet fleet could be modified to tolerable noise level at a cost of one million dollars per engine. Techncal knowledge is available today."

STARR: "For purposes of discussion let's assume that I'm right and you're wrong, and that jet noise won't be eradicated in ten years."

Does Inglewood have any planning for that contingency?"

PIERSON: "Yes, we have a noise study program based on what noise will be in next ten years...We have a department of Noise Control, headed by a citizen who is also a pilot....developing sound measurement and photographic equipment to make bearable the noise that now exists."

STARR: "What are you doing in terms of zoning, etc? You can't control airport noise, but you can control your city's arrangements."

PIERSON: "We have recently amended our zoning ordinances to include certain acoustical requirements. We are studying the southern part of the city to determine what would be appropriate zoning, possibly making that area industrial."

The extent of involvement of the Southern California Association of Governments (SCAG) with other agencies that affect the region was discussed. Question from audience: Is SCAG getting into installation of nuclear power plants?

REMY: No --we have not gotten into that or many other things like freeway route locations --in the future we will not be able to avoid getting into these, with our environmental standards assignment.

Question from audience: Does SCAG include any input from the one regional organization we have, Metropolitan Water District?

REMY: Association with this agency, has been minimal --but I see involvement increasing as we grow.

There was a deep concern that not enough monetary resources are being expended to meet the mounting problems of cities, counties, and states rendering services. It was also evident that there is

little or no money to attract technical expertise. A member of the audience suggested the study of European local government might be applicable: Question from audience: In Sweden most of tax money goes to the local level. Would it be possible to shift our system to this? If fear is best way to get money out of people, shouldn't we dramatize to the public what is going to happen if things keep going the way they are?

CONLAN: About 16% of taxes now paid go to local government-- this is supplemented by subventions from Federal government--Federal level has looked to local government to solve local problems, but has become convinced that they can't be solved there --DEO necessary because local communities haven't shouldered responsibility for their poor--there has to be a complete revision of tax structure and more equitable division of money.

BROWN: Problem is twofold --one part is the quantity of money, and second is establishing priorities for spending that money -- local decisions are not made on basis of what need is, but on basis of "if we do this, can we get funds from someplace else?"--I think priority setting is more crucial than increase of funds at local level.

REINING: I see no chance whatsoever of taking present fiscal power away from the Federal government.

WILL: I want to respond to that part of the question which reveals attraction to European plans --"America principally still has the frontier ethic. This is why the planning and zoning problems are so difficult. People are going to do with their land what they wish to do. They're going to arm themselves, if they think

the police are not going to be able to protect them in case of riot. These things would be extremely difficult to do in most European countries...When we talk about imposing regional planning controls, you are running head-on into what is still the lingering but very strong impulse of the frontier spirit. The maximum of freedom, and the least amount of regulation. And this is the great problem.

THE LUNCHEON SPEAKER:

H. Chad McClellan, a former businessman, has been engaged since the Watts riot in trying to do something about the problems of black and chicano minorities. As a doer, organizer, concerned individual and citizen, he described the problems of the minorities and related how he attempted to resolve ~~one~~, one of those problems.

MCCLELLAN:

I want to give you a bit of the picture nationally and locally, and it isn't all bad --

--Hatcher, mayor of Gary, Indiana, had these things to say last year: "Urban America is wallowing in decay and despair. The black man is denied acquisition of skills in the technology which has no use for the unskilled. The world is asking what sort of people the Americans are -we are the most frightening people on earth" --Representative Hawkins is quoted as saying, "The conflict between blacks and whites is more economic than racial in character, and could be eased by national policies. But I think we're moving in the opposite direction because of our economic policies. The condition in the Watts district is much worse now than it was in 1965, when riots wrecked the predominantly black area"--

--The national scene --non-whites in foreman and craftsman job classifications increased by 57% in the '60's --during the same period such jobs increased 12% -- in 1960 only 18% of non-white workers earned \$8,000 a year or more --by 1968 32% of such families achieved that level of income --in the South, where it was not so good, only 19% of Negro families earned \$8,000 a year or more, even

by 1969 --outside the South, young Negro families now achieve 99% of the comparable income for whites--

--In education by 1968 19% of Negro children three to four years old were school enrolled --compares to 15% of white children the same age enrolled --by 1968 45% of Negro 18-19-year-olds were in school-- almost equals white student enrollment of 51% --Negro college enrollment rose 84% between 1964 and 1968 (434,000)--in 1960 39% of non-white youngsters completed high school, by 1968 58% were graduated--

--In 1965 Watts riot thirty-four lives lost, 200 buildings destroyed, cost \$40 million in economic destruction --three reasons for riots: 1) Not enough jobs for black people; 2) Inadequate education for their kids; 3) Resentment of police authority, regardless of its validity-- further investigation showed that unemployment in Watts was three times that of County --no employment agency available in whole community --

--These people wanted work --no sizeable group that didn't want an honest job in preference to welfare --had education, attitude, some had experience --but they couldn't find work--

--Our committee decided that while we couldn't get into everything that was wrong, we could do something about jobs --formed 50-member committee of black businessmen, met with them for nine weeks --and this was the high point in my experience of the whole five years-- to find out in these nine weeks the bitterness, the resentfulness, and the degree of hatred that permeated this group in terms of the system and the society--it took weeks to finally come down to talking about jobs --finally we said, "We're limiting ourselves to the

job question. Will you join us?"--they agreed--

--We then asked them to adopt a resolution damning riots as a means of achieving the goals all of us were seeking--they did--

--Telegraphed 100 presidents of corporations inviting them to meeting at Chamber of Commerce --two items on agenda: 1) Confidential, inside report on Watts; 2) We want your advice --every one of them came--explained that we were business men, not in charity business, didn't want anybody to hire someone he didn't need just because the person was black--didn't want anybody to hire man for job he didn't need to fill --"You can either come in and do what's right about it, or turn your back and suffer for it"--not asking for money--just asking you to come and take a look with us--to a man they did--I've never met the kind of response we had from industry --hiring, within a week--before the end of the year they'd hired 2,150--by early 1966, 4,751 hired by 800 companies--

--What does it mean?--What were the results?--Survey in 1966 showed two thirds of those hired were still with original company--and half of the rest had moved over to other companies--

--In 1967 started National Alliance of Businessmen --now work with 1500 corporations in Southern California--in last two years industry, through the work of 25 volunteer executives, has pledged 39,000 hires of minorities, half of which have already been put on jobs.--

--At present unemployment has risen--difficulties are real--discrimination has not been resolved --

--We have skill centers --first one blacks wouldn't go to -- they picketed it--finally got a class of nine and got every one of them a job within a week --and every one of them had a police record-- now we have waiting lists for our five skill centers --which are running at half capacity because inadequately funded out of Washington--

--If you want to get dimensions of problem, follow a black man for a day --we aren't conscious of insults, and half insults, imposed on him every day by somebody, in small ways, and sometimes pretty big ones--something that can't be solved by industry alone--it's not industry's problem, it's society's problem --involves church, government, labor unions, educational system--

--The black man wants to be judged by what he is, the kind of man he is and what his potential is, to perform, to serve, to achieve, and to advance--he wants to be judged by what kind of citizen he is, what he stands for, and what he can become-- he doesn't want to be judged out of sheer prejudice because of the color of his skin--

--There was a group called the Sons of Watts --and for about a year after the riots they were plain trouble, at least the police department thought so, because one of their principle functions was to follow squad cars around and try to catch them off base --finally these fellows got the idea that maybe they ought to get jobs--leader of group asked me to come down and talk to the guys about jobs-- met in a burned-out gas station on 103rd Street--I got half way through my pitch about registering for jobs at California Employment Agency down the stree --about half of the sixty-five guys walked away--

didn't believe me --I finally got hold of their two leaders and challenged them to get twenty-five to apply for jobs and see what we'd do --100 guys went to work in ninety days out of that operation, and it changed things a bit --one of them wrote me a letter "Recently you came to Watts and made some promises that you would help us get jobs regardless of our police records and regardless of our status as citizens. I was one of your severest critics. I hated your lordly, lofty position, and ethnically speaking I hated you. Perhaps I still do, but you did what you said you were going to do, and as far as I can see you've never had any publicity for it. Mr. Chad McClellan, I salute you. Mr. Chad McClellan, I thank you."

The members of the symposium thought that Mr. Chad McClellan had earned that thanks.

THE AFTERNOON SESSION:

This workshop meeting attempted to place in perspective the role of the politician and administrator of public services, Two police officers, an administrative officer in city government, and three individuals professionally concerned with air and water systems were present on the panel.

The discussion centered around long range planning in public systems; how the planning or lack of planning is affected by the physical environment; the concept of the public interest and the role of the technologist in these issues.

STARR:

-- A characteristic of the technological profession is the element of design--a design for political and social goals is not basically a new problem--what is new to technical industry are value measures and objectives--political scene has almost complete absence of forward planning--it seems to make no significant use of information already known (political, sociological, economic) in planning for future--I would like to hear from panel members how each of them does long-range planning in his area of responsibility.

AYERS:

--Little forward planning done in government because it requires money --and planning is dirty word in a lot of people's minds --
"Can you tell people what they really don't want to know?"--if the air transportation industry looked at its cost expectations, it should realize that it would be cheaper to rectify noise on planes than to relocate all the people near airport sites--

EARLE:

"Police planning is not in its infancy. It's in about its third month of uteral gestation. It hasn't even been born yet.... Police have done it to themselves in this country up until the last few years, because we have been, to understate the case, very conservative....It's a case now of not playing catch up, it's a case of really trying to start making use of the technology that is there"

FERGUSON:

We aren't disseminating technology we already have --small California towns have none of the sophisticated police techniques found in large cities.

WARNE:

In water we have done forward planning --the California state water project --many of the criticisms are in terms of new concepts, new thinking on matters considered by planners originally, but which were rejected for cost reasons as "frills" in a utilitarian project-- my experience is that technicians are usually far ahead of the public policy people with respect to environmental factors--"We (technicians) may have not gone far enough, but I think we are ahead of public policy frequently in this planning effort."

A member of the audience asked whether it should be required of engineering to design systems subject to constraints such as noise, pollution, or environmental intrusion.

It was generally agreed that many of the objectionable consequences were anticipated by technologicsts, but the final decisions

were made by other professionals. This quandary was stated by STARR:

"I think one of the faults of our profession, one we are learning about, is that we can't just sit back and let others pick up the information and make the decision which we know ten or twenty years from now is going to be the wrong one...I think we do have a problem, but part of our problem as a profession is that, if we start taking on the decision participation role, not just providing options, then we need input from the political, social scene that our own profession doesn't have now....and, to some extent, the political scene doesn't have either. That is the quandary."

TYSEN:

Among environmentalists the engineer is often the villain--one of the greatest villains is the highway engineer--the California Department of Highways really thinks the only viable transportation is highway transportation --will fight you if you suggest otherwise-- Department of Water and Power is only interested in pumping more energy into city, whether we need it or not --when one suggests that Los Angeles basin might have lost capacity to absorb any more pollution, they get mad --so completely are they involved in projects to make more power that that has become an end in life --my point is that you as a profession are guilty of this same kind of tunnel vision.

F. KING:

We're dealing with a will-o-the-wisp, the public--depends on who's ox is being gored --people want the things that cause pollution (planes, cars, freeways, etc.) for their convenience, but then gripe about the pollution --all the time they're using the things that

cause it, and enjoying them.

TYSEN:

"I think we can have our cake and eat it too. I think we can plan systems that are compatible with the environment" --engineers, when they see future bad consequences of a project, should take leadership and say, "Unless you take this into consideration I refuse to do anything."

WARNE: Environmentalists should, instead of attacking decisions and the planning of agencies -- e.g. Department of Water and Power-- get them to locate plants environmentally advantageously.

TYSEN: The larger picture is that we shouldn't plan for lots more people in Los Angeles basin --can't take it ecologically --we'll all stifle --but Water and Power people don't look at that, just at their specific function --we need to get into big picture.

STARR:

Congratulate TYSEN for eloquently presenting minority position-- but your basic problem is not with technologists or with political people --it is with the public --until public decides it wants different transportation than cars, and that it doesn't want to expand the Los Angeles basin, your point isn't viable --technology not forcing public --public is asking for high rises, freeways, power, etc.

REINING:

"One should be careful in use of word "public". When you talk about the gas tax and the highway program in terms of the kinds of legislative pressures, in terms of the preclusive use of those funds, what is the public? It's the Cement Institute, the highway contractors, and other pressure groups. This IS the "public"."

TYSEN:

"That is where the definition of public interest falls short, because the public interest thus far has been a collection of private interests. Our society hasn't given priority to these kinds of problems in terms of allocating funds that we gave to other programs."

AYRES:

The aerospace industry has prospered --and one reason is that what you do is never subject to vote and referenda --there is more spent on one contract (C5A) overrun than there is on parks, recreation, and urban renewal in the federal budget for one year --at the local level we have the damned referenda to go through to get our appropriations --you don't --"I think that we're in a transitional period in this country between technology and hypocrisy"--how about converting technology into something productive for our manmade environment?-- the kids are asking us to line up our values better.

The panel members were asked to state some specific tools needed in their jobs which the technologists could provide.

EARLE:

I want to do away with police firearms, so you've got to come up with an instrument that will render an individual instantly incapable of violent response --also, I want to render the car I'm chasing incapable of moving, so that we don't have to have dangerous high-speed chases.

A question from the audience: Isn't one of your problems defining what crime is?

FERGUSON: Not only what is crime, but also what are policemen

supposed to do? --we don't clearly know our role.

AYERS: If we eliminated public drunkenness as a crime and made it a health and welfare problem, legalized marijuana, and made traffic charges not crimes, we would reduce crime rates about 60%--45% of arrests in the U.S. are concerned with alcohol.

FERGUSON: We could use surveillance from sky vehicle not as offensive as helicopter --some kind of quiet space platform --also, training devices for policemen which will teach them how to deal with various social stress situations.

WARNE: Taking nutrients out of waste waters --high voltage transmission so that power plants can be put where they won't pollute the environment --desalination --reclamation of waste waters.

REINING: We need devices for communicating with the public, getting and keeping their attention.

TYSEN: Need scientific study on how much pollution basin can really stand --and we need technicians to testify in support of our environmental pleadings before legislative bodies.

Technological needs are apparent and would involve the allocation of resources to develop the technology proposed by the speakers.

It was not clear to many technologists present how they could apply their talents to the issues discussed in this session.

As one engineer in the audience asked, "Is there a place where a concerned technician could be gainfully employed doing these things?"

The conference adjourned on this question.

EPILOGUE:

The conference is over; we remain as individuals, professionals, organizations. The systems, real and imagined, exist.

Has this brief excursion changed our view of reality? For some yes, others no, and the mass of us in between.

The persistent question remains:

"If we can go to the moon -- why can't we..."

Since the conference we have been to the moon and back twice. With continuing faith and money we shall go again and again.

Individuals and companies in the aerospace industry are in economic difficulties. Unemployment is at an all-time high in the industry. Contracts are precious and highly valued.

It's doubtful that the life styles of the poor, the disenfranchised, the ethnic minorities, the disabled, have changed very much; only perhaps for the worse. Both societies are sharing the interface.

This is a transition period in our society.

Have we learned anything from this conference that will help us through the transition?

Throughout the conference there was an assumption that the model of resource allocation and organization of the present aerospace industry could be adapted almost in toto to effect certain societal changes.

But, we saw that attitudes, values, judgments, prejudices, decisions and consequences of these decisions keep getting in the way. The hard systematic organized logic of the technician has to

be tempered to appreciate the reality of incorporating inconsistent values and prejudices while applying rational methods of engineering. If we are to incorporate people systems into hardware systems or vice-versa, we shall have to cope with this apparent contradiction.

In the conference we heard people speak of their life styles in which they talk, act and behave differently than the typical white, Anglo-Saxon, middle-class, Protestant person. The persistence of assuming the homogeneity of the population makes for unanticipated consequences in the design and execution of public and private systems.

Two personal orientations ran throughout the conference. One was the idea of an individual's commitment to become involved in issues of concern — whether poverty or ecology. Involvement, as discussed in the conference, surpassed professional commitment. Without a personal "nitty-gritty" participation in life processes, professional abstract commitment will be wanting.

The second was the idea that all people want an increasing voice in the institutions, organizations and systems that influence their lives. Answers cannot be imposed from the outside. One might add that this is in the best American tradition of individuality and responsibility. The reader might ask himself of his commitment to the alleviation of social ills. Two of the speakers, Schwartz and Mc Clellan, demonstrated how a personal commitment could be implemented into "can do" action. The former revitalized a high school, and the latter got jobs for black people. These ideas tied with a criticism of engineers and technologists for being "cold", "inhuman" "over rational". Of course this criticism is unjustified, and

engineering was stoutly defended, but we might consider the possibility of adding "a heart to technology".

Sensitivity, sensitivity, sensitivity ran throughout the meeting: to life styles; to a new quality of life; to better products and services; to a reallocation of national priorities; to the political complexity of social solutions.

While most of the participants favored a holistic macro systems view in grappling with social problems, one speaker thought that problems of poverty could be best resolved on the individual or micro level. This is a fundamental issue that is unresolved. "Perhaps the problem of the poor", as one wag remarked, "is that they are not where the money is."

Transferring technology to the public sector might be quite different than technology transfer in the industrial complex. Technology transfer in the public sector was related to the ease of accommodation of the innovation within the users' program and to the amount of risk involved in adopting the innovation. If one is to transfer technology in the public sector, one asks: who is the user? who gains? who loses? These questions refer to the policy maker, the clients, the advocates, or the staff involved in the transfer. There seemed to be general agreement that hardware technological transfer(e.g. transportation systems) could be performed by the aerospace industry, but that this transfer should be in a social context or matrix. Finger demonstrated that the people problem of Operation Breakthrough was more difficult to resolve than the physical technology problems. Technology, utilized in the social and physical

planning process has capability to change attitudes. There is a push-pull or dielectric process involved. If "low cost housing" is made physically and socially attractive then certain onious connotations of "low cost housing" will tend to disappear. A more mundane example: When kosher food is served on airlines by request attitudes are modified. As we now accept different models and arrangements of hardware we can accept different software arrangements in the recognition of different attitudes, perceptions of reality and life styles.

The variety of problems discussed in the conference: - environmental, people, governmental, physical - were viewed as problems. A problem by definition implies a unique solution. Americans pride themselves on being a nation of problem solvers. This concept may in itself be a trap. Consider that the conference was engaged in an examination of social-technical phenomena and that many, if not all, of the phenomena are not capable of unique solutions. If this is so, we might want without knowing the ultimate objective or solution. But, we should know the direction.

Many people have life styles that are not compatible with a life that we think Americans should be pursuing. Our communities have problems and difficulties ad nauseum. Technology sits in the curtains waiting for the stage call. In our society to activate technology, it appears that the stage call would be the sound of money. This sound is a stage whisper; lost in the noise of the rhetoric of competing characters on the stage. We speak of "government spending" and "private investments". We are niggardly, parsimonious and stingy

in the allocation of national resources in the areas of concern discussed in this conference. Again, as reiterated in the conference, the rational allocation of resources is dependent on the attitudes of society. Will the attitudes to these problems change? This question is now unresolved. It is of paramount importance in our present transition stage.

These conference proceedings started with the query:

"If we can go to the moon, why can't we..."

Perhaps the question might be rephrased in the following way:

"If we can resolve our social problems, improve the quality of our lives, then can we go to the moon, and beyond?"

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MOUNT, George: Los Angeles City Employee

MULROONEY, Keith: City Manager, Claremont, California

NORMAN, Alex: Director Urban Affairs, UCLA

PETERSON, John: Chairman Los Angeles Mental Health Commission

PIERSON, David C.: Councilman, Inglewood, California

PIXLEY, John: Chairman, Los Angeles Welfare Planning Council

REINING, Henry Jr.: Dean, USC Von KleinSmid School of Public and
International Affairs

REMY, Ray: Executive Director Southern California Association of
Governments

SCHWARTZ, Paul: Principal Hamilton High School

STARR, Chauncey: Program Chairman

THRALL, Edward W.: Symposium Chairman

TYSEN, Frank: Professor Public Systems Research Institute

WARNE, William E.: Water Resources Development, Sacramento

WILL, Arthur G.: Manager of Real Estate and Director Small Craft
Harbors, Los Angeles County

FIRST DAY CONFERENCE AGENDA

Monday, July 27, 1970
LIFE STYLES
(Savoy Room)

Session Chairman: Manuel Aragon, Jr., General Manager City of
Commerce Investment Co.
(Formerly Executive Director, EYDA, Los Angeles)

8:30 Registration — Foyer, Regency Room

9:00 Welcome — Edward W. Thrall
Symposium Chairman
Symposium Mission — Dr. Chauncey Starr
Program Chairman

Session Summary — Aragon

Panel Participants:

Armando Chavez
Executive Director
Clelland House, Head Start
Clara Godbouldt
Los Angeles Head Start Program
Miss Cornet
Rancho los Amigos
George Mount
Los Angeles City Employee
Coffee Bread (15 minutes)

12:00 Lunch — Riviera Alcove and Versailles Room
Speaker: Tressa Drury
Commentator and Reporter
Radio Station KFVB

2:00 Workshop — Aragon (Riviera Room)
Resources: Robert Goe — President, Economic
and Environmental Development Corp-
oration, Formerly Chief Office of
Community Development, City of L.A.
Robert Levine — RAND Corporation
Formerly Director, Planning, Office
of Economic Opportunity
Daniel P. Luevano — Consultant Formerly
Deputy Director of Finance, State of
California; Assistant Secretary of
the Army; and Regional Director, Office
of Economic Opportunity
Bob Cheesboro — President Cheesboro
Manufacturing Company

SECOND DAY CONFERENCE AGENDA

Tuesday, July 28, 1970
SERVICES TO BE RENDERED
(Savoy Room)

Session Chairman: Dr. Nathan Cohen
Professor
UCLA School of Social Welfare

9:00 Session Summary — Cohen

Skid Row

John Pixley, Chairman, L. A. Welfare
Planning Council

Robert Menar, Supervisor - Child Welfare
L. A. Department of Welfare

Coffee Break

Mental Health

John Peterson, Chairman
L. A. Mental Health Commission

Dr. Hiawatha Harris, Director Central City
Mental Health Clinic

Education

Paul Schwartz, Principal Hamilton High
School

Alex Norman, Director Urban Affairs, UCLA

12:00 Lunch — Riviera Alcove and Versailles Room

Speaker: Honorable Harold B. Finger
Assistant Secretary for Research and
Technology Department of Housing and
Urban Development

2:00 Workshop — Cohen (Riviera Room)

THIRD DAY CONFERENCE AGENDA

Wednesday, July 29, 1970
THE RENDERING OF SERVICES
(Savoy Room)

Session Chairman Dr. Henry Reining, Jr.
 Dean, USC Von KleinSmid School of Public
 and International Affairs

9:00

Session Summary — Reining

The City

Keith Mulrooney, City Manager, Claremont

David C. Pierson, Councilman, Inglewood

Coffee Break (15 minutes)

The County

Arthur G. Will, Manager of Real Estate
and Director Small Craft Harbors,
Los Angeles County

John Conlan, Supervisor (Camarillo)
Ventura County

The Region

Ray Remy, Executive Director Southern Cal-
ifornia Association of Governments

Richard R. Brown, Councilman, El Cajon

12:00

Lunch — Riviera Alcove and Versailles Room

Speaker: H. Chad McClellan, Board Chairman
The Management Council

2:00

Workshops — Reining (Riviera, Savoy, Versailles Rooms)

Resources: Douglas Ayers, Administrative Officer
Inglewood
Howard Earle, Chief, Sheriff's Office,
L.A. County
Fred Ferguson, Chief of Police, Covina
Frank King, Air Pollution Control
Institute, USC
Frank Tysen, Prof. Public Systems
Research Institute
William E. Warne, Water Resources
Development, Sacramento

SYMPOSIUM-WORKSHOP COMMITTEE

General Chairmen:

Edward W. Thrall
McDonnell Douglas Corp.
Herbert H. Rosen
TRW Systems Group

Program Committee:

Dr. Chauncey Starr
(Chairman)
Dean, UCLA School of Engineering and
Applied Science
Peter Dybwad
Monogram Industries, Inc.
Capt. William C. Fortune
(USN Ret.)
NASA Marshall Space Flight Center

Sponsors Committee

Shirley Thomas
Annis and Thomas

Finance Committee

Milford G. Childers
Lockheed California Co.

Facilities Committee:

C. David Knauer, Jr.
(Chairman)
Hughes Aircraft Co.
Constantine Lakides
MRCA
Jack Lang
Small Business Administration

Workshop Committee:

Carl Adams
(Chairman)
McDonnell Douglas Astronautics Co.
George Bulk
McDonnell Douglas Astronautics Co.

Publicity Committee:

Matt Portz
(Chairman)
Aerospace Corporation
William H. Herrman
Hughes Aircraft Co.
Robert Scholl
Tom Tugend
UCLA
Lawrence Vitsky
McDonnell Douglas Corporation