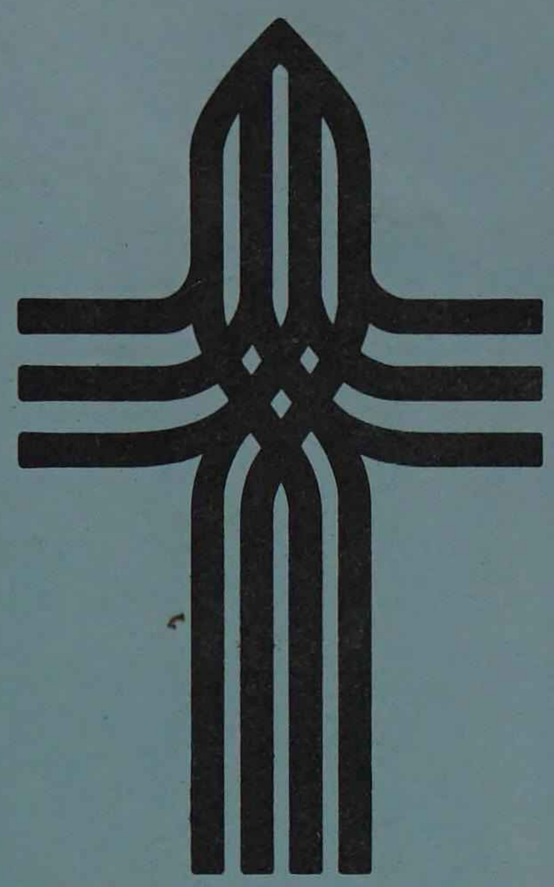
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Theonetics

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I N T R O D U C T I O N

for

Norman V. Petersen

Our first speaker was born in West Branch, Iowa with his education beginning in what we Iowans call "The Consolidated School System". He received the B.S. degree and M.S. degree from the University of Iowa. Immediately following school he worked in the field of heat transfer, then in preliminary design studies of ground and air launched missile systems, orbital flight mechanics and conceptual design of manned space vehicles. This was in the early 1950's when this type of thing was "way out". In 1959 he became chief of the Astro Sciences Group Northrop Corporation, again concerned with advanced space technology.

As Chief Scientist for the Air Force Flight Test Center he has been concerned with the facility design, as well as the professional development of the Center's engineering and research staff.

Along with his assignment as Chief Scientist he also was a member of the Air Force Systems Commands Technical Management Council, and as such, has attended meetings on aeronautical and space research in Europe as a representative of the U.S. Air Force.

He has participated in the technical review of all major U.S. Air Force and NATO facilities in the European and Mediterranean areas. His membership on the AFSC Technical Management Council also involved him in the annual programming of activities in organizing the jointly sponsored science and engineering symposiums of the AFSC and the AF Office of Aerospace Research.

He has authored or co-authored twenty-five technical papers having to do with space flight. He was a delegate for the U.S. at the fifth and sixth International Astronautical Federation Congress in Copenhagen and in Rome. He has been active on the Board of Directors of the American Rocket Society. He was founder and first editor of the Astronautical Sciences Review.

With the Gemini rendezvous so much in the news today I think that you ought to know that in 1958 our speaker organized the first professional technical symposium held in the U.S. on the subject of Orbital Rendezvous, the first of which will take place this month, seven years later.

I wish there was time to tell you of awards received and societies he has membership in and a listing of some of his papers.....notable is the fact that they (when you look at the dates) were way ahead of their time. I noted one written in 1955 entitled "General Characteristics of Satellite Vehicles" written for the Journal of Astronautics.

Now you will be thinking, why is this man in this Symposium? There is much to say about this but the essence of it is that during the past several years he has given increasing personal time and effort to seeking an understanding and resolution of the problems of the nation's living environment. Serious (and technically competent) consideration has been devoted to identification of enduring national goals and to achieving, through proper planning, a more reasoned matching of human and natural resources.

My first contact with him was in March when he responded to our invitation to speak with a phone call. Later we met at lunch and I came to know that here was a scientist who had deep inner motivation to stir the imaginations of man to solve his social problems in the same way he has begun to solve technical problems.

Today, November 1st, is his first day outside the "gun barrel" industry...no longer employed by the Air Force...for starting today he is "putting his money where his mouth is"....that is, he is on his own having begun a brand new company called Resource Synergistics, to do long range planning studies into the 21st Century.

Since he leans heavily toward new concepts in urbanization we have asked him to speak on the subject, "New Frontiers for Century 21"... Norman V. Petersen.....

"NEW FRONTIERS FOR CENTURY 21"

by

Norman V. Petersen

1 November 1965

Resource Synergistics Incorporated
19930 Lubao Place
Chatsworth, California 91311

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WORLD POPULATION DOUBLING TIME

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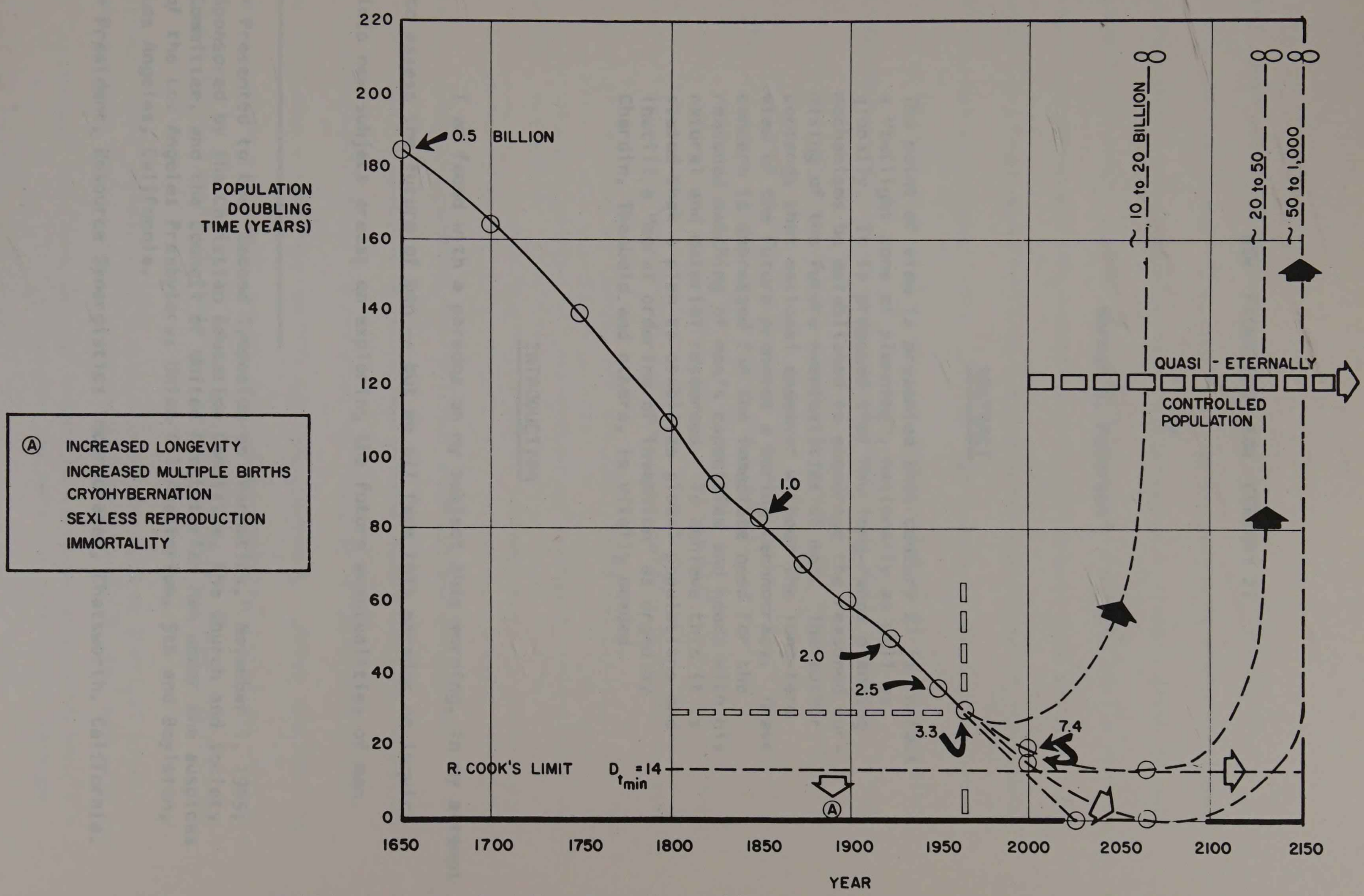
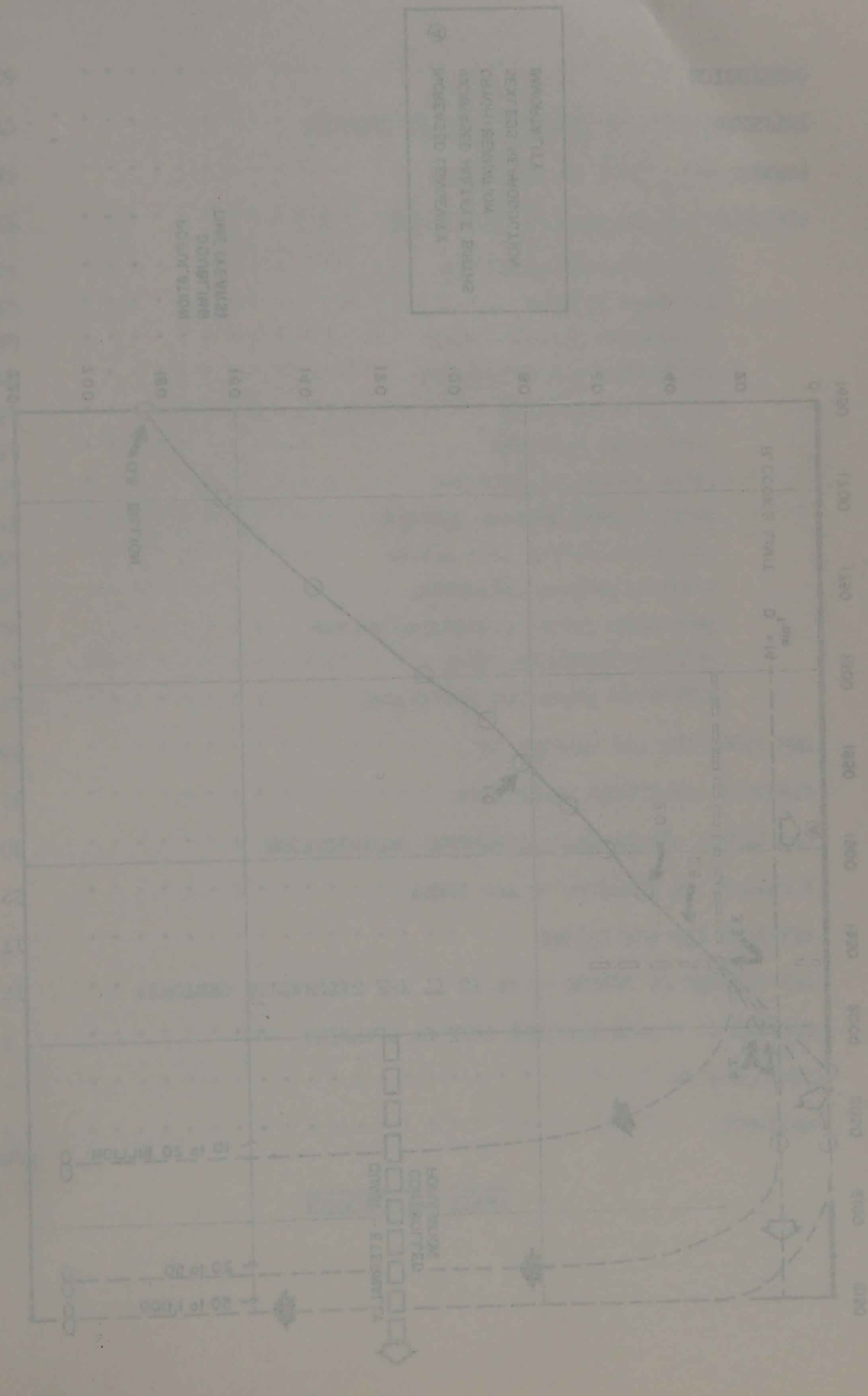


Fig. 1. World Population Doubling Time From 1650 to 1965 With Projections to 2150 A.D.

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NEW FRONTIERS FOR CENTURY 21*

by

Norman V. Petersen+

ABSTRACT

The point of view is presented that century 21 is in fact a "twilight zone of planning", nationally as well as globally. It is proposed that new long-range planning mechanisms be established to encouraye the reasoned surmising of the future eventualities of man. The author contends that national endeavor without the long-term view of the future promotes a boring technocracy. Grave concern is expressed for the immediate need for the reasoned matching of man's capacities and needs with his natural and material resources. To achieve this it is stated that a plan to stabilize global populations and instill a "moral ordering of invention" as urged by Chardin, Theobold and others, is vitally needed.

INTRODUCTION

I am faced with a paradox on my subject this morning, in my attempt to assess the future of man -- but we all face this paradox on inquiry into new subject areas; on exploring the future eventualities of man.

---

* Presented to the "Second Symposium on Theonetics," November 1, 1965; Sponsored by the Christian Education Committee, the Church and Society Committee, and the Council of United Presbyterian Man under the auspices of the Los Angeles Presbytery; Union Oil Auditorium, 5th and Boylston, Los Angeles, California.

+ President, Resource Synergistics Incorporated, Chatsworth, California.

David Hume has noted, "Enthusiasm arises from pride, hope, presumptions, and a warm imagination, together with ignorance." On the other side of enthusiasm is overspecialization. Here we practice the "etiquette of specialism," defined by Jacque Barzun as the "... piece of etiquette which decrees that no specialist shall bother with the concerns of another, lest he be thought intruding and be shown up as ignorant." When specialism extends to regions of the nation it is provincialism, and to whole countries it is nationalism.

So today let's throw caution to the wind, and specialism out the door, as we explore the future of century 21!

It is a great pleasure, yet a great challenge, to participate in your conference on "theonetics" * -- the search to find a higher synergistical relating of science and technology with the religious philosophies of man! It is a search to find, not the easiest pathway to the future, nor the simplest concensus to action, but the meaningful quest for a higher order of consciousness in the society of man.

Theonetics implies more than the mere relating of technology and religion. It must infer both the search for an improved national and global urbanization of man, and the "moral ordering of invention" as Chardin has noted.[1] Combined, perhaps "theonetics" is the secularization of man, as Harvey Cox observes in "The Secular City," but where the phenomenon of urbanization may extend hopefully beyond his cited "tech-

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1 Pierre Teilhard de Chardin, "The Future of Man," Harper & Row Publishers, New York, 1964, pp. 202-203.

* I have previously employed the terms "socialonics" and "socionics" to express the secular features of "theonetics."

nopolis" to a "theonetopolis" or a "sociopolis."[2]

Theonetics must mean more than the mere pursuit of technocracy -- this seems to be our desire today, a fettish for an unfettered technological development, if you will, nearly a religion of science, leading to a broad spectrum of organizational rationales for "inventing nature."

Our science and engineering profession, very nearly excludes the parameters of man for the parameters of "things." And on this, Emerson has said, "Things are in the saddle riding man". I suspect that we in the field of technology are preoccupied with the "fun jobs" whose product only adds "things" to the saddle of man.

We should seek to improve the rapport between the purportedly isolated segments of our national life -- those of the academic disciplines, the technological, industrial and governmental, and the sociological and religious.

We have an obsession to splinter our endeavors to the point of boredom. Much of our 75 million-man work force has fallen heir to the disease of "overspecialization" and to the "etiquette of specialism." We have partitioned off nearly 6 million from the broad aspects of national endeavor -- by either choice or coersion in the matters of defense and space. There are countless millions in other spheres of endeavor equally removed by indifference and by choice. As we seek to tear down the ghettos of Watts, Harlem and Selma, we build new shiny, sterile ghettos for our Senior citizens to further fragment our society.

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2 Harvey Cox, "The Secular City," The Macmillan Company, New York 1965 p.5.

Nearly half of our two million-man technical community, though salaried, is as "unemployed" as the Appalachian coal ..iner or the Navajo Indian. If the present programs of the Great Society fail, it will be because the present two million-man technical community is very nearly uncoupled from its plans and programs for action. There is no "game of tag" between the poverty program and the technologists. The Economic Opportunity Act, a vital piece of legislation, is not in hot pursuit of the technologist. And the technologist is so enamored with his "fun job," or so constrained by the strait-jacket of overspecialization as to be ineffective in creating new job environments, not make work, but meaningful tasks.

The technologists are not being asked to create meaningful job environments for either the disenfranchised of the poverty program or the unemployed, or the partially employed, the partially disabled, the featherbedder, nor the participant in the monolithic production of much useless commercial effect. We should each cease our peddling of parochialism and seek the reasoned matching of our great resources.

It is a pleasure to participate in a departure from the usual professional meeting format. For it is vital that we broaden our interdisciplinary associations by seeking solutions to our greatest concern -- the synergism of our human and material resources. Perhaps more conferences of this nature may serve to perturb our Great Society gently toward the format of a Grand Society -- for we are already "great" though not "grand."

It is my purpose today to speak on the subject of "New Frontiers In Century 21." I share this task with others on related topics and your first seminar has already explored, to some extent, how to link the present to the future. Perhaps my remarks will in part, be the reverse -- the linking of the future to the present by a discussion of our need to "surmise the future eventualities of man." Where most of our endeavor today is in response to "feed back" signals derived from yesterday's historical data and today's actions, I will be suggesting that we employ a "feed forward" signal shaped by reasoned surmising of future eventualities. The point being that we will derive a more viable society if we can complement our existing morass of "feed back" signals with a more discernible "feed forward" signal -- building today's society of man by shaping the future!

In closing, I plan to touch briefly on such new frontiers as century 21 urban centers, migration lures and deterrents for favorable migration of people, earth boring machines to speed urbanization, over-ocean highways, island building on the continental shelf, a global real-time census system, transcontinental tube trains, etc. But first, I will emphasize the techniques to achieve the consensus for action to achieve these frontiers.

CENTURY 21 -- THE TWILIGHT ZONE OF PLANNING

Century 21 -- how does it start and how does it end? I am not an oracle, nor do I have a clairvoyant eye to pierce the curtain of time

blocking our view of the future! But I am certain that to consume the mind of man in only today's affairs will instill a mental block against hope for the future, assuring a chaotic tomorrow.

We have today nearly 3.5 billion people involved in the skirmish of today's affairs. We have but a handful concerned with the tomorrows of this decade. But the tomorrows of century 21 are still only the domain of the poet and the science fiction author. And by concern for tomorrow I do not necessarily include the scientist or engineer working on his pet new project.

And yet, far beyond century 21, or the next millenium, we have the ethereal tomorrows of the religious philosopher whose links to the society of man, I fear, have grown or remained so tenuous as to have scant coupling to the mind of man. Century 21, or 22, or 23, are easily within the bounds of human judgement and rationality, yet this interval of time is not the domain of today's long-range planner, or the religious philosopher. And century 21 is the "twilight zone" of the "respectable" long-range planning houses of the nation; it is the twilight zone of respectable thought around the globe! Our dialogue on century 21 is at best, only tongue-in-cheek, if not outright humor. Century 21 must be placed on our agenda for concern and action today!

It is argued that since technological innovation is not predictable, a century in advance, even a quarter century, nor often to five years, that it is folly to speak of serious planning for century 21 or 22.

But this comes only from those inebriated with the trinkets of technology, the economic opportunists, and the foolish who can be led, whatever the direction or command.

It is argued as well by the most staunch laissez faire economists, because of increasing complexity in the sociotechnoeconomic domain, that identification of a path into the future is impossible. That conclusion is derived by accepting the premise that all our daily endeavor, all our technoeconomic activity, has a high intrinsic value.

There is much to show on this score that little of our daily commotion has much, if any, intrinsic value. Professor Dennis Gabor, University of London, in reference to the view that free enterprise demands an "indivisible" freedom with governmental participation at a bare minimum, observes, "The truth is rather that in a country in which the economic game is played passionately, this threatens to produce a dull conformity, the very opposite of freedom." [3]

To plan for the future, century 21, and the deep-future beyond, does not mean that we extrapolate our present trappings to only monolithic proportions; nor a pseudo-complexity to a higher order of confusion! This would be un-planning. To plan for the future of century 21 means to identify the structural features of the society of man -- only the meaningful features that show promise of yielding a higher synergism of mankind.

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3 Dennis Gabor, "Inventing the Future," Alfred A. Knopf, Publishers, New York, pp. 149-150.

We speak idly of advancing technology -- but we are not releasing minds of men to ponder the days of century 21.

Yet the time constants in the interplay of many key forcing functions in today's world demand attention easily a century in advance of the desired result.

A preoccupation with only today's affairs, or those bordering on eternity, leads mankind down the road of a daily grind so abrasive as to wear away his faith in the future -- his faith in himself and his fellow man. The abrasion of man's spirit can be halted both by raising his eyes to the deep future in the quest for a reasoned pathway through time, and by leaving the solution of today's affairs to a more modest, yet adequate team of minds and hands.

This preoccupation with only today's affairs, or those of the eternal, leaves the society of man unprotected to the evolutionary inroads of a boring technocracy, if not a religion of science, and the constraints of a subtle, yet growing trend to militarism.

There is no proof that the center of gravity of global intellect is rising to a higher level of combined consciousness.

In 1962 the late Julian Huxley, former director-general of UNESCO,[4] stated that less than 2.5 percent of the youth of the world received any

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[4] Julian Huxley, "The Human Crisis," University of Seattle Press, Seattle, Washington, 1962, p.

secondary education. There seems no proof that any gains have been made in this indicator of intellect in the past five years. I suspect we are breeding ignorance faster than we produce intelligence.

We have much talk about change:

-- about scientific advancement!

-- about technological innovation!

-- about educational progress!

-- about industrial development!

-- about economic expansion!

-- about social change!

-- about an everlasting growth in population!

Many in America, and around the world, are omitted, or disconnected from the forces of change, advancement, innovation, or progress. Many see technological change as a goal in itself. Many overlook the need for a "moral ordering of invention" as Chardin has noted. Robert Theobald has observed that until society finds the new endeavors for the "displaced man" of tomorrow, the technologists should refuse to create the machines that displace him. Others think that change in all features of man, the change from day to day, from year to year, decade to decade, century after century, can go on ad infinitum into unending time -- but this is not so!

I could have said, " ... this is not likely to be so" but I will stick to my declaration that it will not be so! Some features of man are likely to be so firmly and necessarily constrained, as if cast in concrete.

Century 21 will see, and must see, the end of change in population

growth. We have arrived, I suspect, at the need for fixation of populations even today, but our lethargy to act, our failure to achieve a powerful enough consensus today will only drive home the urgency by the year 2000. Our momentum of carelessness, or inaction, will likely not be markedly mitigated until that late date; the problem more pronounced; the solution more difficult.

We have come to the end of the road of laissez faire procreation, the muddle-through rationale of sociotechnoeconomic growth, of the pursuit of numbers, of the scramble for quantity. Some features of man must soon be molded to a pattern of constraint -- one feature to be so cast must be the headcount of man. My point is that the world is maturing, or worse, mushrooming to a size that must be controlled, or perhaps in better terminology, shaped to fit the resources of man.

The world is being compressed to an order of human density that demands a change in change -- a change to an eternally fixed society of man in certain of its key dimensions. All other parameters, or features of man, may change without end, perhaps hopefully so, but the headcount of man, or some other dimensional feature as size or efficiency, must be stabilized, or shaped, to fit the needs of man in century 21 and beyond. And these must be shaped to fit, if not for an eternity, at least a quasi-eternity -- for a thousand years, if not the next million.

The compressing of man to a quagmire of human density is now, as conceivable as to a land of plenty, and includes no assurance that a higher order of consciousness will be a natural course of evolution. An ascending consciousness, in a world influenced principally by psychosocial forces, is more apt the product of rationality.

On one hand, the family planning organizations are on the increase, and on the other, the teams of geneticists are more active in research on control of heredity and evolution of man, the inventing of nature. But little is being done concerning the central topic, population control.

Let me ask, "Are we ready for even a single quasi-eternally fixed parameter of man -- a fixed headcount of man or another parameter to achieve the same goal? For surely the effort to derive this consensus must be at the top of the agenda for man's development.

This new century of time, century 21, will be the first interval of time wherein the entire world will be covered, not small islands of humanity as in congested cities of all past ages, but the full globe. We have to face up to a covered earth, in a narrow sense, a matured earth in the dimension of its population. We must begin to think how to urbanize the globe -- how to accommodate our economic systems, our political systems, our social systems, to a quasi-eternally fixed census of people. We must change society to fit a changeless population of man -- a quasi-eternally fixed dimension of humanity. An awesome thought! Ponder it for a moment! It need not, but fixed-sized nations could mean fixed-sized cities, and fixed-sized economies, etc. It could mean the pursuit of quality, not quantity!

Three major conclusions can be stated in reference to century 21. First, "We must seek the consensus of how to stabilize and shape the population of man." Second, "We must seek an improved synergism of man's capacities and needs with his resources." And third, "We must search for this higher level of consciousness for the society of man." The

first two of these is simply to contrive an improved secularization of man, the improved format for global urbanization. The third is to seek a higher level of intellectuality -- a higher level of understanding and participation by the mind of man.

THE CENTURY OF REASON - OR IS IT THE SATURATION CENTURY?

Michael Harrington, in noting the random interaction of the diverse and powerful forces loosed in the 20th century, and man's nearly laissez faire gospel of sociotechnoeconomics, has cited these years as The Accidental Century.[5] He infers that the remaining 35 years will likely be a continuation of the past 65 years of "muddling through." At any rate these ten decades are to Harrington, The Accidental Century.

It is my suspicion that the next one will be The Saturation Century! It could alternatively be The Century of Reason, or The Maturing Century, but we seem too fascinated with the trinkets of war, too selfish with the products of style and affluence, and too careless with the intellect of man.

From our present situation of merely four small wars in process today; a global cold war that continues without end; a restricted affluence in the western world amidst its own style of poverty; a selfish consumption of world's resources by the "have" nations unmindful of the future needs of the "have nots"; a myopic rationale of sequential ex-

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5 Michael Harrington, "The Accidental Century,"

tinction of resources by the technologically nimble without a care for the next century; and a laissez faire policy of procreation.

These will likely combine to make certain the next hundred years is The Saturation Century. This will likely be the day of reckoning when the mismatch between our mouths and our food, when the variance between our needs and our resources is not a debatable point. Perhaps the wars of this present century will ultimately only be viewed as the beginning of the "food wars." It will be The Saturation Century if we cannot shape it as The Century of Reason.

After nearly a million or so years of growing up, it may well be that the society of man will have crossed over from its million years of adolescence abruptly to its doddering old days of senility and a lingering death, without ever reaching the age of maturity.

The authors of "The Triple Revolution" have set forth a valuable assessment of the powerful forces at work in our society -- the revolutions of cybernation, weaponry and human rights.[6] In their views, these three revolutions are combining (a) to yield the organizational facilities to give unlimited productive capacities (at least to the technologically nimble), (b) to eliminate war as a path to conflict resolution and (c) to demand full human freedoms for all.

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6 W.H. Ferry, Robert Theobald, et al, "The Triple Revolution: An Appraisal of the Major U.S. Crises and Proposals for Action:" A Memorandum to President Lyndon B. Johnson, The Majority and Minority Leaders of the Senate and House of Representatives, and the Secretary of Labor; 22 March 1954; Prepared by The October Group, an Ad Hoc Committee on The Triple Revolution with thirty-two signatures.

"The Triple Revolution" sets forth a plan of action to ease the transition from today's society to a new age of man. Some see this new age as "the workless society," others as "the age of time-off-from-work." The authors of "The Triple Revolution" contend that it can become "the age of leisure," and the transition years would entail implementation of massive new frontier endeavors -- in education, public works, housing, urbanization, etc. Perhaps my only criticisms of "The Triple Revolution" is the failure to cite in detail, the need for national and global population control and a sufficiently broad spectrum of new frontier endeavors. My point is, that powerful new frontiers, meaningful frontiers, do exist that would extend the transition to this new age of man, perhaps into the deep future, beyond century 21, giving us more time to shape the future. Perhaps secondly, these new frontier endeavors can be shaped as "works of leisure" and the transition would simply be the phasing into our structure of work, an increasing degree of meaningful endeavor, "the works of leisure."

Secretary of Labor, W. Willard Wirtz, has candidly remarked of our need for long-range national and global planning, and the perplexing problems illustrated by "The Triple Revolution." He states, " ... what we are doing really right now is flying the most powerful economic engine in the history of mankind, and I mean to include all of our scientific and technological developments, and we are flying it by the seat of our pants. We are flying it by luck, by instinct, with almost no instruments at all in the cockpit... I am not sure that on this basis, we are going to be able to keep up, as social engineers, flying this blind, with the

amount of technological development which is being brought about."[7]

In a similar vein as "The Triple Revolution" and remarks of Secretary Wirtz, Professor Seymour Melman of Columbia University has expressed equally dramatic concern for the mismatch of man's capacities and needs with his resources. The impact of the cold war on American society is vividly shown in Melman's "Our Depleted Society."[8]

Whether it is The Saturation Century, The Maturing Century, or the Century of Reason, depends on whether we elect now, in the next few years and surely less than a decade or so, to develop the powerful consensus on world population control, allocation of resources, and a rationale for instilling in the mind of man, a meaning for living in his age of material affluence and leisure, if it should so occur. If these three goals are not identified by a nearly unanimous consensus, and pursued by a receptive world population, it will surely be The Saturation Century, with all the evils that will be turned loose on man. To better accommodate to "the Triple Revolution" we need to advance "a triple consensus" for action.

This triple consensus can better be achieved if we implement new mechanisms to advance democratic planning. These may include such concepts as:

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7 Secretary of Labor, W. Willard Wirtz, Statement to the Select Committee on Government Research, House of Representatives, 19 November 1963.

8 Seymour Melman, "Our Depleted Society," Holt, Rinehart, and Winston Publishers, New York, 1965.

(a) Identification of a Decade of National Planning to provide for an interval of time for national and global inquiry; to probe the future format of man's living environment; and to shape our future not accommodate to it.[9]

(b) Formation of a series of New Frontier Planning Institutes to identify the boundaries of future eventualities of man in the twilight zone of time, through and beyond century 21.

(c) Sponsorship of National Congresses on New Frontiers to provide a forum in the sociotechnoeconomic domain for free expression and dialogue on the future of man. The objective would be to identify a spectrum of frontier opportunities for man; to set before the eyes of society, congress, and the President, a broad reportoire of choice -- not a narrow bandwidth of choice, but a full spectrum.

Such National Congresses on New Frontiers could be complemented by State and Regional Assemblies on New Frontiers. Combined, these new forums have the image of a fourth branch of government -- the "Creative Branch." These mechanisms for planning, for surmising the future, must employ the rationale of "identifying the spectrum of choice" not "selection" nor "implementation" of the preferred choice for these are now the province of Congress and the President. Planning fails today on two scores, and is in fact a dirty word, because of the dearth of planning and the planner's insistence that he also be the implementor.

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9 Norman V. Petersen, "A National Plan for Century III," Presented to the Graduate Seminar on Urbanization, University of Iowa, Iowa City, Iowa, 17 March 1965.

(d) Development of State of the Nation Display Centers: These new facilities would serve as "centers of democracy" and would have the express purpose of informing the public on "the state of the nation and globe," perhaps better termed, the "map of mankind." In this network of display centers would be presented the growth trends of the past, today's potential, and tomorrow's projections. These State of the Nation Display Centers could serve as focal points to aid in closing the loop of information dissemination and in turn, nourish a grass-roots understanding of complex national and global endeavors, and as a consequence, strengthen the vote! These centers could additionally, reactivate the old concept of the "town hall," for these centers of democracy should be as numerous as the post office, the church, and the tavern.

In my judgement, these are vital new governmental frontiers to explore, for the "new sociotechnoeconomic frontiers in America's future" will accrue from these mechanisms to yield an easier consensus.

PLANNING FOR THE FUTURE

Possibly the greatest so-called "spin-off" of technology from the nation's vast defense and space industry is the developed capacity for systems management of large engineering projects. This is not to infer that a major systems contractor on a ballistic missile, or a lunar vehicle program, though this is claimed, has the developed capacity to provide systems management of the social engineering projects that appear to be in the nation's future.

But never in its prior history has the nation had such a vast capacity in trained and available talent. Further, much of the nation's two-million-man technical community is idling along now only half utilized. At least half of this two-million-man technical community is engaged in needless look-alike engineering projects, mirror-image research laboratories, duplicative design contests, and wasted efforts in parallel structuring of the industrial, governmental and military hierarchies of research, development, production, and in management.

The technical community is as busy developing its own mechanisms of unwork as that of labor. Featherbedding, the mechanism of labor, employed out of fear for future unemployment, has its parallel in the technical community, where "featherbraining" is the luxury supported by a fettish for the trinkets of war and an obsession for style on the commercial front.[10] The featherbraining component of our two-million-man technical community, in my opinion, runs to half this number -- a one-million-man force of misemployed, underutilized and idle, but salaried adept.

This technical resource could be released to perform a broad spectrum of comprehensive system studies as a foundation for national and global planning for the next century. This talent, if released from much of its current duplicative endeavors on defense and space technology, and many other areas, could provide to the public and the appropriate legis-

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10 Norman V. Petersen, "A Summary of A Spectrum of Frontiers -- America's Greatest Need," Presented to the San Francisco Bay Area Seminar on Defense Conversion and Changing Demand, Stanford Research Institute, May 26, 1964.

lative bodies in the nation, a broad reportoire of feasible options for future growth.

Perhaps our approach should be to set aside the next decade -- 1966 to 1976 -- as the "Decade of National Planning for Century III" if not Century 21, as noted earlier.

Certainly this talent should not be released, yet retained, under the same roof structure of existing mission-oriented defense plants, laboratories, or corporations. Our living environment should be shaped by a free body of talent working in the open, not under the security of lock and key, or surveillance of security police. To a great extent, the four recent studies of California's next quarter century of growth in transportation, waste processing, criminal institutions, and information systems, were shaped by talent immersed in a secure, defense-oriented environment. With due respect for the noble purposes of the talent involved and the broad objectives of the industro-governmental offices concerned with California's Aerospace enterprise, it has been a false economy. Shaping our living environment behind the desks of defense security guards is becoming a commonplace reality. It is a form of technological totalitarianism.

Even our restricted affluence can and must provide an open socio-technoeconomic endeavor to shape our "Grand Society," for the tasks before us are surely monumental in complexity and scope. This talent must now be given the awesome and open task of effecting solutions to the greatest social engineering projects that man can conceive of. This is the responsibility of national and global planning for century 21 with

the objective to determine solutions creating and controlling national and global stabilized populations, and the meaningful urbanization of man.

Let me ask, "Is it proper for the California landscape and environment to be shaped by talent behind the security guard? Will it also be proper for the rationales of population control to be shaped there? Where do we draw the line? Is there a line between shaping the urban environment and the population environment? Or should we not seek to define a new structuring of creative technical talent working with an open door policy to shape a free society?"

To apply this vast force of talent today to national and global needs during century 21, we need a reorganization of much of our enterprise across America. Here, I refer to the sociotechnoeconomic features, not that of economics alone. We need new organizations of such technical color as to include the economist, the sociologist, the engineer, the scientist, the religious philosopher, and even the poet.

Visualize placing into a box the Ford Foundation, the Rand Corporation, Stanford Research Institute, The Brookings Institute, Resources for the Future, The Center for the Study of Democratic Institutions, a major aerospace contractor, the University of California, a Carl Sandberg, and a Chardin, Tillich, or a Billy Graham. Then shake it a bit, turn on the spigot, and we would have the technical color to better synergize the human equation, as well as the technological ones.

Let me ask, how many of you are now serving as consultants to industry, the academic field, or the government? You are as vitally needed as the engineer in shaping our tomorrow -- industry is remiss by

not having on its staffs the religious philosopher and the poet. What company will be the first to be so brave as to broaden its talent to fit its problem areas? We need to broaden the technical color of our planning for century 21 -- and we need to release much of our technical talent now trapped and constrained by the forces of militarism.

Let me make a brief comment on another feature of this tyrannization by technology for we must be conscious of the inroads of totalitarianism, whatever the form. To a large degree, we have promoted science as a sacred cow. To an alarming degree, this sacred cow of science and technology grazes blissfully and acquescingly in the pasture of another sacred cow -- on the surface a benign, frequently a benevolent, but often an overzealous, patriotic industro-militarism. To a regrettable degree, we live increasingly in an armed society. For a nation founded on a strong concern against any standing army, we have strayed a long way.

It is a standard rationale that the "military services" are a fine place for a young man to mature! Surely there is room to mature in an expanded Peace Corps, Food for Peace, or A.I.D. Surely we can design a new national organization for maturing our youth -- a moral alternative to our war machinery. This could take the format of a "National Disaster Force" with vast mobile teams to do battle with mother nature -- the catastrophic events of hurricanes, floods, drought, earthquakes, and disease.

We have in full view, Nike missile batteries and long-range radar domes are visible in many urban areas. Industrial conferences on new weapon contract areas draw thousands of engineers, scientists, and managers,

whereas university courses for industry on disarmament technology are dropped for lack of interest. Our school play-yards frequently enclose on display fighter aircraft. School children are released from schools to witness first flights of weapons of war. We are blasted daily by sonic booms from supersonic bombers. Daily the roar of multi-million pound thrust rocket engines shock the orange groves and urban areas. Nearly half the work force of Los Angeles, in its pursuit of the weapons industry, though thinly disguised in civilian attire, wear the uniform of militarism. The overlying rationale is that the weapons industry should grow with the GNP as every other business.

A CENTURY OF PLANNING -- TOO LONG?

On long-range planning, just what interval of time is the proper choice? We now have public and private governmental activity, based barely on a fiscal budget derived a year at a time. So many interactions occur in the "family of man" that we are bogged down with nearly living day by day. Many of us insist that this is fine; that let's be thankful for even this short-lived consensus, and others see long-range planning as the ordering of the ants.

There are few areas of our affairs that involve a five year plan, either rigid or flexible, and a ten year format for growth is nearly non-existent. Some countries are ridiculed for postulating five year plans. England's attempt today is a case in point.

President Truman established a 25 year long-range planning study in 1950-52, whereby the Materials Policy Commission completed its "Re-

sources for Freedom" assessment to the year 1975. This task, in turn, was handed on to the National Security Resources Board, the NSRB, in 1953, in turn in 1954 to the Office of Defense Mobilization. A year or so later, this long-range planning function for the nation passed hands again to the Office of Civil and Defense Mobilization. Shortly, the ball was passed to the Office of Emergency Planning in the Executive Office of The President.

A letter from the OEP a few weeks ago, in answer to my inquiry as to their scope of effort in long-range planning of natural resources, remarked as follows: "We do not study the long-range peaceful use of resources, although we recognize that perhaps we should. There is not to my knowledge, much attention within the government to the function... (of) the synergistical application of plans, programs, and resources for long-range development. The main reason has simply been that immediate problems have demanded attention, and funds have not been available for long-range resource planning."

If the OEP is not doing long-range planning for the nation, then who is? Well, a quick reply would be that this is performed by the other committees, panels, advisory groups within and supporting the Executive Office of the President, or is independently being handled in the vertical structuring of the departments of the government. This is only partially true. No long-range planning of substance, or in ample span of time, is now being done by any official agency of the nation, or other public or private institution. We contrast our dearth of planning for the future with a proliferation of day-by-day minutia.

What is the proper span of time to consider in attempts to link the present with the future? Are four years sufficient? Ten? A quarter century? A full century? A millenium? Infinite? Surely the span of time must fit the forcing functions and their interactions -- the short-lived interactions derive from high frequency forcing functions, and the long-lived evolutionary responses derive from more leisurely, yet tenaciously compounded day by day, inputs. The rapid interactions relate to daily or yearly time constants between input and output response -- the slow to those forces acting over decades if not centuries, and having similarly, long wavelengths, or long time constants between force and response. A threat of war, or a hurricane warning can drive the stock market up or down overnight -- a response to a leisurely build-up of interest in population control over several decades has its impact downstream in time perhaps a century hence.

We are now facing, more firmly than we would admit to earlier, the mismatch between human life and its resources. But we must soon pursue global discussions of population stabilization and resource matching to achieve viable responses in the deep future ahead -- century 21. It is my view that just beyond the present interval of time, deemed respectable by today's long-range planner, a quarter century at best, are anomalies of awesome proportion. Present day sociotechnoeconomic planning ignores all indicators of these anomalies -- these discontinuities in the affairs of man.

I have cited President Truman's 1950-1975 planning study on "Resources for Freedom." The long-range viewpoint was compressed to only

the decade of the sixties by President Eisenhower's Commission on National Goals assembled in 1956-1960. It fails to touch the population problem and many others, in any detailed sense. President Kennedy and President Johnson have encouraged more recently, through the Executive Office of the President, selected planning documentation extending in some cases to a decade, with a few to a quarter century.

Resources for the Future, an institution of the Ford Foundation, is developing a valuable inventory of resource reserves and estimating their consumption through the year 2000.

Professor Harrison Brown, in his "The Challenge of Man's Future," has expanded the theme of such treatises as Fairfield Osborn's "The Plundered Planet" into a valuable assessment of future needs extending to the year 2000. Brown's more recent adaptation of his 1954 volume now appears under the title of "The Next Hundred Years," though belying the title, he touches but briefly on events after the year 2000. Nevertheless, it is a valuable book.

Fritz Baade, the German sociotechnoeconomist, in his "Race to the Year 2000", presents the general view that the world faces no serious problem in its matching of human need and resources up to the year 2000. He carefully avoids reference to the needs of man in the 21st century.

A number of useful contemporary volumes have been written seeking to identify the boundaries of conceivable eventualities of the next century -- most concentrate on the wonders of the scientific world and touch only peripherally on the society of man. Perhaps the more noted and valuable of these is Arthur C. Clark's "Profiles of the Future."

Others include Sir George Thomson's "The Foreseeable Future," and T.C. Gordon's "The Future."

Pre-dating these have been such noted efforts as Aldous Huxley's "Brave New World" and George Orwell's "1984." And even earlier, such contributions as Edward Bellamy's "Looking Backward." These have described both the utopian and the cacotopian ordering of man, perhaps a century hence. Most dwell on the scientific or technological breakthrough of the future with small reference to the society of man, or the "moral ordering of inventions." Only a few authors have given attention to the implications of science and technology on the affairs of man in the future.

Frederick Georg Juenger, in his "Failure of Technology," describes Germany's technological growth leading to W.W.II and forsees the possible tyrannization of man by technology. Robert Jungk, in his "Tomorrow is Already Here," describes the cacotopian culture of a technocratic and armed society. These are reinforced by the writings of Jacque Ellul [10] and Jacque Barzun [11] on the pitfalls of a technological society with its emphasis on "specialization" and acceptance of the "ettiquette of specialism."

Undoubtedly the most far-ranging authorship on the society of man

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11 Jacque Ellul, "The Technological Society," Alfred A. Knopf, New York, 1964, p. 132.

12 Jacque Barzun, "Science: The Glorious Entertainment," Harper and Row Publishers, New York, 1964, pp. 202-213.

has been C. G. Darwin's "The Next Million Years." But the in-between years from 2000 on, have not been explored to any serious depth. The 21st century is an untouched domain -- a twilight zone of thought -- yet it is within our perspective of the future and tenure of responsibility.

Perhaps the most brilliantly authored works are those just now coming into print; those of Pere Teilhard de Chardin and most noteable is "The Future of Man." This is perhaps one of the finest treatments of man's need for an improved synergistical relating of science and religious philosophy. Chardin's vision of the coalescing of the society of man to a higher order of consciousness suggests a rapid transformation, the process must in fact, span a vast interval of time -- surely, the very deep future, far beyond century 21, if not millenium 21.

I repeat my question, "Just what interval of time is the proper choice for long-range planning?" The answer is simply the intellectual limit of man's mind. To stretch this limit to its maximum, we should seek ways of increasing the bandwidth of choice concerning our pathway to the future.

One way to broaden our spectrum of choice on man's future eventualities, is to employ more effectively our academic institutions. Margaret Mead has recently proposed that universities establish "Chairs of the Future" to search for the conceivable eventualities of man. Julian Huxley cites this and adds that these "Chairs of the Future" be staffed by "Professorships of Possibility" and "Faculties of Human Possibility." At this date, the nation's academic enterprise has yet to found its first "Chair of the Future."

Perhaps the first endeavor toward such effort is the Futuribles Project funded by the Ford Foundation in Paris. This international body under the direction of Bertrand de Jovenal, has devoted effort to defining methodologies suitable for long-range forecasting of future possibilities of man. Attention has been given to identifying a format for operation of a "surmising forum" wherein the reasoned conjecture of future eventualities in the sociotechnoeconomic domain will be identified. The overall purpose is to try to identify the boundaries of future eventualities, not the precise path that may be followed -- just the boundaries of possibilities.

On this point, Graham Wallás, the English industrial psychologist, and author of the 1914 volume on "The Great Society," gave encouragment to the long-range planner of the deep-future when he stated, "We must let our minds play freely over all the conditions of life till we can either justify our civilization or change it." Perhaps Wallas was in essence, proposing that we establish within the intellectual sphere of endeavor a form of "free mentalprise," to paraphrase our economic domain. But to construe that Wallas was advocating a laissez-faire doctrine for this free mentalprise, as interpreted by some for free enterprise, would be to overlook Wallas' moral concerns.

As a consequence, I suspect that the upper and lower bounds of surmising the future eventualities of the society of man should reflect constraints ranging from "unfettered sociotechnoeconomic development" to "social engineering with a moral purpose." We must search the landscape of the future for the pathways of man leading to a higher level of consciousness, a higher order of meaning.

We must be aware of the conceivable pitfalls that may appear on the scene of man as promoted by the disguised works of totalitarianism. We should be conscious of those anomalies that degrade man. The technologists, in my opinion, bear your close scrutiny and help. We should be mindful of those anomalies at work in our technological endeavors as "over-specialization," and the "etiquette of specialism," to cite again the words of Ellul and Barzun. These anomalies, in my opinion, are spreading a new form of totalitarianism, through a "tyrannization by technology." The pursuit of technology without a moral purpose; a fettish to invent nature simply as a "fun job," or as a means to a paycheck, without a meaningful relating to the capacities and needs of man, is little more than nihilism.

Pere Chardin speaks eloquently to this concern in his discussion on "the moral ordering of invention." He observes that in their abstraction, " ... technical achievement and moral virtue, science and faith (faith in the future) may seem to be things that are not only separate, but even opposed to one another." However, he concludes that " ... <u>in the</u> concrete reality of Total Evolution, and beyond a certain degree of complexity of Consciousness, each of necessity requires the other ..." In other words, there is no such thing as a fragment -- deeply interwoven into the scheme of things are synergistical ties that range from the never less than tenuous to the obvious. Francis Thompson, in "The Mistress of Vision," has observed, "Thous canst not stir a flower without troubling of a star."

THE STRAIT JACKET OF CONTEMPORARY URBANIZATION

It is likely that the strait jacket of caution, conventional wisdom, and conformity of the university and professional urban planning "industry," will never deliver from urban man the saddle of chaos, confusion, and crisis in his living environment.

The academic world, and nearly the entire industrial and governmental community was drug by the scruff of their necks into the space age by the launching of the technological Sputnik. I suspect that this same segment of enlightenment must be similarly treated by identification of a "Social Sputnik" if we are to effect a significant and meaningful advance on the social front -- but in what form will come this "social sputnik?"

We are naive if we think the new Department of Urban Affairs is this Social Sputnik! We are naive if we assess the tardy Civil Rights Act as this Social Sputnik! We are naive if we judge the poverty program, the Peace Corps, the Appalachian Regional Development Act, the Voting Rights Act, the Immigration Act, Medicare, the Secondary Higher Education Acts, the Tax Cut, or next year's Marshall Plan for Cities, or a dozen other vital legislative acts as this Social Sputnik! Even the important declaration for a Great Society is not this Social Sputnik! None of these is the declaration of purpose for action on the urban front to match the silence of inaction and its bounty of poverty lingering on the door step of the future of man. The Social Sputnik that will coalesce the efforts of all mankind -- that will spawn the sociotechnoeconomic effervescence needed to match the problem can be no less than a global declaration for

population control, or better, a declaration to shape the society of man to fit his resources and environment.

TOWARD A STABILIZED POPULATION

Little serious discussion is occuring around the world by our economists, philosophers, scientists, engineers, industrialists, or even our statesmen, as to concepts for a stationary population. A few concerned biologists, resource analysts, and demographers have for years signalled the need for population control, yet little attempt has been given to setting forth any concrete plans for this future eventuality. Birth control is a subject of many -- a subject concerning procreation restraints at the individual level. Birth control is a subject espoused by the fortunate, or concerned, for the less fortunate, or less concerned. But birth control without an overall plan for population control is futile if not immoral. A plan for population control includes the fortunate as well as the less fortunate. We need to convince the entire spectrum of man that a meaningful guideline applies to all!

As for concepts and implications of a stationary population, this has been almost left entirely to the utopian, and cacotopian writers, and the science fiction writers have touched more frequently on this condition of a future stabilized human community. Yet the world's resources have practical limitations; many have an expected attrition of only decades remaining; some only a century or so; and only an exceptional few hold promise of an eternity of consumption.

The Western World, including the United States, Europe, England

and Russia, each with whirlwind technoeconomies, are to a great extent, bleeding dry the entire globe of its resources. Though we claim to the world we pay a just price in today's market, yet today's consumption and today's price are intimately related to next century's depleted reserves of resources and the next century's value.

The Western World is today basking in the oil of Kuwait, and so are the sheiks. We have proof that our price today is acceptable by reason of proof of that nation's leaders' outstretched hands for gold. We, the Western World -- We, the Kuwait's leadership -- We, the technologists of the world -- are pursuing a wreckless course of "sequential extinction of resources." We deplete one resource after another, as certain as if there were a written Charter of Exploitation disclosing both a Right and Command as a "goal" of man.

We could alternatively search for the "amplifiers of resources," the "synergistical relating" of these resources, both human and material, to yield an amplification of their values -- not a rapid degradation through sequential extinction of these resources. For the long-term future, the deep-future through and beyond century 21, we should begin to identify the "half-life" of all our known resources. This does not mean simple inventories and linear extrapolations of past production, consumption, or exploitation rates, but projections based on synergistical, and meaningful relationships, as well as new technological plateaus that may emerge.

The utopian and cacotopian writers of the past and present have speculated on eventualities of the future, with schemes for containing a

mesmerized populace of vast dimensions; to stationary populations based on contemporary society; to fixed populations with all sorts of ideologies, cultures and societies ranging from the benign to the totalitarian. Accommodations for these stabilized societies range from great underground earth-scraper cities to multi-layered sky-scraper cities coast-to-coast across every land, to floating oceanic islands and man-made continents, to colonies on the moon and mars, to hollowed-out asteroids in orbit, etc. But these are not excluded from the picture of a stabilized population, but to the contrary maybe, if we fail to act! Neither is there a likelihood of not retaining a capacity for increasing the population if so desired at a future period of time.

President Johnson, in his recent January 1965 State of the Union Message, spoke forthrightly of the population explosion. The Gruening and Udall bills for appointment of new Undersecretaries in the Departments of State and H.E.W. to staff new Offices of Population Problems were presented to Congress in April.

Former Senator Keating accepted the chairmanship of a Population Crisis Committee to help in the public promotion of legislation and to encourage family planning programs. Congressional and public opinion seemed strongly in favor. Recent evidence indicates that Congress reconsidered, and the bills are quiescent for another year. But will this quiescence run to a decade? Yet these first bills are little more than door openers to an increasing dialogue -- vital, but far from the powerful solution needed.

Let me make a few remarks concerning our national and global

population growth.

Our U.S. population is today about 196 million. The range of estimates today for the year 2000 extends from about 350 million to 400 million. Our doubling time for the U.S. is now about 35 years and dropping. If the doubling rate should stay constant at today's rate, by 2065 we will have from 1 to 1.2 billion and by 2100 about 3 billion, nearly today's world population -- in the United States.

California's present growth rate is about 1 million per year -- by 2100 this means another 135 million people, if not many more.

Globally, the headcount rises rapidly. From today's 3.4 billion it appears certain that this will increase to nearly 7 billion. By 2000 a recent U.N. estimate places it at 7.4 billion, with a doubling rate of less than 30 y ears. By 2065 the global census may show 30 billion with resources to serve hardly a tenth that number. By 2100 the same growth rate would yield upwards of 100 billion.

These numbers I have cited to illustrate the typical estimates of demographers. "What do you think the 'map of mankind' looks like in the years 2000, 2065, or 2100?"

In making a simple plot of population doubling times it is clear that we are converging to a unique point in time. At the birth of Christ the estimated world population was about 250 million. Subsequently, it took 16 centuries to double to 500 million. The next doubling took only 235 years; the next but 90 years. Today the doubling rate is less than 35 years. If you plot these data, it appears very linear during the past few hundred years -- the slope of this linear function is about one year

reduction in doubling time per two years of time. A simple extrapolation intersects the time scale at 2026. Figure 1 shows this relationship.

But can the doubling time go to zero? Based on certain criteria, Robert C. Cook, Editor of the Population Bulletin for the Population Reference Bureau has stated that the minimum, or lower limit, for the doubling time cannot be less than 14 years. It appears this limit will be attained in only 28 years, by 1993.

Cook's assessment infers that the doubling-time curve will make a smooth transition from its present decreasing rate to a constant rate, or will alternatively rise by reason of some passive or active constraint on population growth.

If the doubling time should stay constant at 14 years for very long, standing room only would be the outcome for century 21. Starting from the year 2000 with 7.4 billion the year 2100 would have a globe with over 950 billion people. Therefore, it is clear that the doubling curve must soon start to bend upward and approach infinity.

But there are other factors to weigh. Though family planning programs may expand, there are forces working to nullify these gains.

For example, improved health and medical practices are increasing longevity. The infant mortality rate is lowering.

But there are others that may appear on the scene of population growth of even greater significance. First, medical technology is making great strides in replaceable body parts.

Second, as discussed in the recent series of articles in LIFE, both human parthenogenesis and sexless reproduction may be a Huxlian

reality.

Third, increased trends to multiple births for barren marriages have been placed on the population production line. A considerable number of quintuplets was recently noted.

Fourth, some evidence suggests that a form of cryohybernation, as well as cryointerment may be a future practice.

And fifth, scientific prognosticators of repute have even surmised that immortality may be an eventuality by the year 2100.

Should these technological anomalies, certainly the latter, prove to be the case, the doubling time would become assymtotic to zero since there might be no death. Certainly if held near zero very long, human protoplasm would take the form of a global cancer.

The course of ad infinitum growth must cease or mankind will be smothered. This is surely not what Chardin had in mind when he speaks of mankind " ... ever more centrated" giving a " ... continuous rise of Social Unification (rise of masses and races)." Yet Chardin adds that the " ... human mass ... is now entering ... a phase of compression which w may seek to control but which there are no grounds for supposing will ever be reversed." Surely Chardin will be proved wrong on this prediction! My question is "How?"

These seminars on theonetics are a basis for increasing dialogue on this subject. The spectrum of concepts for shaping the evolution of mankind can be considered a continuum of mechanisms ranging from laissez faire procreation to the views of Muller, Hierneux, and Chardin. The ordering of complexity ranges from the laissez faire, to a simple control

of numbers, size, efficiency, all forms of eugenics, to robots and cyborgs, to genetic surgery and euthenics, and on to Chardin's and Hiernaux's "supermankind." The dialogue on family planning is extensive and similarly that of genetic surgery and euthenics. But the more central subject, that of population control by stabilization of number, size, or efficiency is largely avoided. Some hope that the problem will simply disappear. Others hope to make a leap over night to a new "supermankind." "What is your choice?" Let us be mindful of the "Cadillac"version of future man but let us be sure to arrive there by building the "Model T" -- a simple control of population!

While on this subject, let me add an analogy. Perhaps a planned, or controlled production schedule or "birth rate" of the automobile might serve as a "population control simulator" for mankind.

Since our nation is a country on wheels, it becomes a prime motivating factor in our economy -- one job in six is due to the auto. Our economy depends upon the mass production of cars and we personally cherish a high vested interest in the "right to own and drive an auto." Our retention of an ad infinitum population growth rationale is akin to our "right" to an unlimited auto "birth rate."

Both rationales are vitally tied to our economic vitality, though where one job in six is due the auto, nearly nine out of ten jobs must be due to population growth. Both are nurtured by high vested interests. Both consume, or claim, natural resources. Both occupy space even after their useful life -- each claim their respective graveyards. Both have a total reclaimable value after their demise of about 98 cents, or less.

Both have high upkeep costs -- auto-repair and medi-care.

Perhaps a "birth control" system for autos would prove a useful simulator of a national human population control plan. If we cannot even effect a rational plan with proper matching to our economy in the auto domain, then where can we possibly stand on the subject of population control. Much of our national growth must be attributed to the strong impact of growth for the "diaper-related industries."

In your mind, what should seem a likely target date to stabilize the production of automobiles to precisely match the attrition rate? What is a foreseeable target date to specify that autos be produced from fiber glass, or other unlimited or renewable resource? 1980 is seen as a 15 million unit year by Detroit. Should that be the date to stabilize auto production? The year to begin a global stabilization of population? What is your assessment?

NEW FRONTIERS FOR CENTURY 21

Let me set forth now a few frontiers of endeavor that lie before us awaiting a decision for action in century 21. All of these have a close relating to urbanization of man, most are urgently needed today, but our lethargy may delay their development until century 21. I will only cite in briefest form a list of new frontiers that I foresee as vital to the global urbanization of man -- for lack of time, I will have to omit specific details on how these frontiers may be implemented. Perhaps the discussion period may give me opportunity to expand on these in greater detail. Only a few can be described in somewhat greater detail at this tim

National and Global Stabilized Population:

First on the list of giant meaningful frontiers for century 21 is that greatest of social engineering projects of "how to create and control meaningful and viable national and global stabilized populations." This does not mean static, fixed ceilings for total populations, but a program for a shaped growth in future centuries with man's capacities and needs shaped to fit his available storehouse of resources. This meaningful shaping of populations can conceivably allow for a modest growth for a long interval of time, yet this shaping may alternatively be toward a static headcount, or even necessarily to a diminished level. Let me leave this to identify other selected frontiers vital to the global urbanization of man.

Century 21 Urban Centers:

Shaping of national and world populations must be done (a) to fit our headcount of people to the foreseeable reserves of resources; (b) to fit our capacities to develop meaningful living environments whether urban or rural; and (c) to fit our purpose in achieving a higher level of consciousness than may be our fate by careless abandon on procreation. We need a concentrated effort today to set forth the concepts for development of century 21 urban centers.

This new frontier would entail a mammoth effort to initiate the design, development, and construction of perhaps 50 to 100 new multi-million population century 21 urban centers in the now barren or sparsely populated areas of the Nation.

Perhaps a good starting point might be the blighted Appalachian

states. Here an area of about 800 miles by 300 miles, over 150 million acres, and exceeding all land area occupied by our present cities, yet rather sparsely populated, would be enough room with ample spacing for perhaps 10 to 20 urban centers of 5 million population each, yet still preserving the beauty of this most scenic land. The President's Appalachian Regional Development of 1965 is aimed at combating poverty, unemployment and the low-income economy for the region. These objectives are good, but is it not possible that such areas of the U.S. could have a more swift recovery and as well, play a more vital role in establishing better guidelines for the future growth of urban America?

The Appalachian Regional Development Act has as its major goal construction of 3300 miles of new highways into Appalachia. This is at least a start toward recovery of that region. But with no further planning than this, these 3300 miles of roads will be little more than highways to nowhere for the next 40 years. If Appalachia could be the seed bed for 10 new multi-million population Century-21 Urban Centers, these 3300 miles of highways could serve as highways to somewhere -- highways to the next century of growth in the United States, a doubling by 2000 and a quintupling by 2065. Many other areas exist in the midwest, the west and southern states and Alaska as desirable sites for these new Century 21 Urban Centers. Perhaps the High Sierras in California, or the Rocky Mountains, or sections of the Grand Canyon area, or the Dakota Bad Lands, or even the rolling Iowa grassland would be ideal areas, and would give to America a frontier for growth without parallel.

Let me ask, "What cities in America stand out in your minds as

cities of note -- as "Gem Cities?" Perhaps we have a few small towns, or villages at best that appear and respond as idyllic havens. A July issue of Newsweek was hard pressed to identify only a dozen "ideal cities" and those all had the format of small university towns, typified by Ann Arbor, Palo Alto, Iowa City, and Princeton. But where are the Gem Cities of a million or more population that flash through your memory as exhibits of quality of environment? Of exhibits of culture? We have none of these! But I suspect we have ample talent to do so.

Perhaps these Gem Cities could appear on the scene as Shangri-Las high in the Rockies, the Sierras, the Grand Canyon, or Appalachia.

Perhaps these Gem Cities could have the format of new Regional Capitals of America. Now that we have cities of the same dimensions as many of our States, and many overlap into several States, perhaps it is timely to think of forming a new mechanism of government within 10 new Regional Capitals integrating the unique conditions of larger elements of the nation. Perhaps we might consider building International Cities of Peace along the Mexico and Canada boundaries.

It has been reported that President Johnson's legislative program for 1966 will include a Marshall Plan for Cities. But this, as reported, is not to include concepts for "urban newal" but will principally be one of a new approach to "urban renewal." It may include a massive effort in a single demonstration city now existing, perhaps like Baltimore, to serve as a spotlight to other cities on how to renew old tired urban environments. As reported, this forthcoming Marshall Plan for Cities does not include the bold move to build Century 21 Urban Centers to fit

our future needs. Without such a concept this new legislation will mostly solve past needs and wants, rather than even today's, let alone that for century 21.

Let me now continue with other vitally related frontier areas of endeavor:

Migration Lures and Deterrents:

Perhaps one of the most vital new frontiers that needs identification today is the design of lures and deterrents to control or promote, favorable migration of the nation's urban population. Steps should be taken to "keep 'em down on the farm." By this I do not mean the rural countryside per se, but new, viable century 21 urban centers that will retain with enthusiasm the present population of the inland states, but also encourage out-migration from present day overpopulated coastal urban areas. These lures and deterrents for favorable migration should be developed. Certainly a prime requirement, with today's Gospel of Work rationale, is to provide a vigorous job environment, but this should, and can be immersed in a culturally aesthetic urban scene. But perhaps we should be so experimental as to design today, new "century 21 cities of leisure," not rest homes for the retired senior citizen that is the present fad, or outrage, but new cultural centers that promote man's betterment through 'works of leisure."

In any event, we need these lures and deterrents to encourage a favorable migration, or retention, with a distributed population. Our coastal belts are now advancing rapidly to regions of excessive density and attendant poor land use. To conclude that the corrective measure to

promote effective migration lures and deterrents can be a small endeavor is to misinterpret the magnitude of the problem. To cite only one new, yet powerful, evolutionary force at work to increase migration to the coastal areas, one needs to recognize the impact of the new national program for building ocean desalting plants. These new sources of water, where pumping costs to inland cities will be excessive, will by the year 2000, only strengthen the migration trend to the coastal cities.

New tax laws should be shaped to promote increased industrialization of the U.S. interior. These tax benefits will attract industrial expansion and serve as a key toward urbanization of the U.S. interior.

These century 21 lures and deterrents for a favorable migration, should take the shape of both the small and large urban environment. New century 21 urban centers, accommodative to populations ranging in the millions are necessary to house a portion of the nation's next 800 million people. Perhaps a vast array, numbering to a few thousand, smaller university towns, housing up to 50,000 residents, could provide a basis for immediate initiation of the most powerful deterrent against further coastward migration. These university towns, even today, encompass most cultural features considered essential in the large metropolitan center. Perhaps new century 21 versions of these contemporary university towns could yield even an improved environment, and could well be termed the "micropolis" as distinct from today's giant, the "metropolis."

National Disaster Force:

Development of a National Disaster Force is needed to serve the humanitarian cause of combatting the catastrophic anomilies in the works

of "mother nature." To serve as an effective moral alternative to the massive war machines, this National Disaster Force would similarly be large. But this could be justified on every count: large because the catastrophies of nature are massive; complex because solutions are urgent; and mobile because earthquakes, floods, hurricanes, droughts, volcanic erruptions, famines and disease are global. It would require all the technologies: highspeed jets rather than bombers; bull dozers rather than tanks; radars rather then missiles; medical supplies, food, and construction resources rather than weapons.

A National Disaster Force could serve instead as the "place" to mature our youth. A part of the world's support for the military service stems from the distorted adult view that "it is a fine place for growing up, maturing our youth."

I am not suggesting that overnight we convert our armies, but let's begin. Let's play the role of the leader and convert a third of our military machinery to peaceful uses -- a one million-man National Disaster Force.

Real-Time Global Population Census:

An important tool to be placed in the hands of the United Nations is a capacity to monitor the growth and characteristics of world population, as well as resources. The use of satellite vehicles as global data collectors can make it possible to develop a real-time global census system. An elementary "black box" for encoding nearly a daily input of statistical data by the local officials of every community around the globe, could function to give the world organizations a "map of mankind."

Even the most rural areas of the globe could participate even without other local, regional or national communication systems. Even if we had to place such a solar powered "census encoder" on every square mile of land, that only requires some 60 million "black boxes" -- the production over a five year span would be the equivalent rate of a small electronics manufacturer of TV sets.

The U.S. itself could proof test such a global system for use in our widely distributed nation. Where Congress cannot agree to a mid-decade census, perhaps their technological curiousity would accept a real-time census employing satellites as data collectors.

Let me quickly identify only a few key technological frontiers that relate closely to urbanization.

The Water Frontier:

I cannot cite all the potential areas for development here, but to develop less than a national water distribution system is to avoid future needs. Beyond the present day "battles of the tincup," for sparse water sources across the nation we should look to such concepts as the NAWAPA Project, massive ocean desalting programs, to chains of man-made holding basins along existing rivers of the nation to make these tributaries run crystal clear. We should even consider the possibility of developing a Trans-America Canal linking the Atlantic, Pacific, Gulf, and Great Lakes. Desalting plants along its course would promote century 21 urban centers and improve national transportation, and recreational needs.

Nuclear-Powered "Dynaways":

By-product electricity from desalting plants can permit develop-

ment of the nuclear-powered automobile to give smog-free urban operation. The linear electric motor concept, or others, makes it feasible to develop nuclear-powered "dynaways" -- highways with built-in propulsion.

Transcontinental Tube Trains:

Cursory engineering studies support the feasibility of developing high subsonic, and even supersonic transcontinental tube trains to match the speeds of the 707s or the supersonic transport. The reliability, efficiency, convenience, and comfort could well be far higher than any other means of transportation. Instead of providing transcontinental mobility to a few passengers on business, vacation, or emergency missions via commercial jet, the same mobility could be provided by transcontinental tube trains but to far larger segment of the nation. But the most significant feature of concepts for tube trains is the potential savings in operation. It is conceivable to develop concepts wherein very nearly the only thing that moves is payload. Thus the burden of moving engines, fuel, and heavy cargo containers can be nearly reduced to zero.

Urban Transit Systems:

Nearly every city in the nation needs highspeed urban transit systems, yet these should not be the device to further increase population densities and urban sprawl, though this is the present city planning concept. New urban land-use laws should be initiated at the same time as urban transit systems to prevent proliferations of Manhattan Islands across the land. Perhaps urban transit systems in established cities where land values have escalated to excessive values demands recognition of these facilities as national assets with these to be universally

funded as the Federal-Aid Urban Transit System akin to the Federal-Aid Interstate Highway System. In new century 21 urban centers, costs for such transit systems if planned in the first stages of city development, would prove nominal.

Earth Boring Machine Frontier:

Perhaps the single most vital new frontier in support of national and global urbanization, in my opinion, is the development of a high speed, low-cost "earth boring machine." If we could improve the present rate of earth boring by 100 times, man would still walk 20 times faster. Where we have 3 million miles of highways, roads, and streets in America, we have need for at least a matching 3 million miles of underground tunnels. At our present rate of tunnelling at perhaps less than 100 miles of tunnels per year the task to drill 3 million miles of tunnels would take 30 thousand years at present rates.

An effective earth boring machine would permit us to do landscape engineering across the American and global scene on a grand scale. An effective earth boring machine would permit plumbing new century 21 urban centers with new underground industrial highways, underground water storage, underground waste processing plants, underground air conditioning, power systems, warehousing and storage of urban resource needs. With an effective earth boring machine we could bury the industrial and operational bowels of the urban organism without exposing these all over the city scape.

The earth boring machine frontier, to my mind, warrants funding if necessary, to match or exceed the present space program or the present

Public Works funding or any number of duplicative supersonic weapons. Actual funding today by the U.S. government is nearly zero.

Ocean Transport Frontier:

Development of new deep harbor seaports will permit ship construction to approach building ships to a mile in length with significant reductions in transport costs.

A new class of air transport operating in the ground effect may permit design of ship-sized air transports having high reliability and low cost performance -- a new vehicle bridging the performance of the ocean vessel and high speed aircraft.

Over-Ocean Highways:

Present techniques used in oceanographic ship design for ocean going research laboratories, illustrated by the Navy's FLIP Ship, plus configuration characteristics of the MOHOLE drilling platform suggests that over-ocean highways are conceivably feasible.

The Ocean Frontier:

Next to the new frontier of global urbanization by development of century 21 urban centers, ranks the growing frontier of oceanics. Though philosophically, the ocean frontier is easily second to the space frontier, in the realm of practical significance, the ocean domain stands first economically. The ocean frontier is accessible to low order economic systems -- even in face of increasing need for improved technologies for development of the ocean's resources.

The world's oceans offer the potential capacity of providing nearly all of our mineral resources -- as a consequence, it is conceivable

that much of our surface mining operations in the country could be terminated, or exploited with less destructive effects in the future. As noted above, it is possible to develop the nuclear powered GEOTRON, a universal resource recovery system operating in the ocean having the capacity of yielding desalted water, electrical power, mineral and food recovery, and conceivably enough energy for "production of land," through reclamation of the continental shelf.

Geothermal Energy Sources:

It is conceivable that universal geothermal power development may be exploited in the future to give to all urban areas a clean fuel conserving energy source. This could mitigate the present wasteful exploitation of our non-renewable resources of coal, gas, oil and even uranium.

Thermalsea Energy Source:

Recent estimates show that the Gulf Stream now contains a source of energy that today is about 200 times greater than the total world's power demand by the year 2000. Electrical power generating plants located on the continental shelf could tap this giant solar battery. It would be conservative of conventional fuel sources, and could serve as an element in even larger ocean-based facilities for recovery of mineral resources, food, and fresh water from desalting plants. Perhaps such thermalsea power generating plants, placed on man-made islands on the continental shelf could serve as the nucleus for new "century 21 cities of the sea."

Man-made Islands:

The use of nuclear energy may permit dredging chains of man-made

islands on the continental shelf from Mexico to Miami to increase the shoreline of the U.S. by a factor of 10 or more. Ships could tow nuclear-powered hydraulic dredges, or sediment generators, like a plow, and ultimately build up an array of long islands, each perhaps a thousand miles long.

It is conceivable such islands could be built in shape of rings, and hence by evaporation or pumping, new large land masses on the continental shelf could be reclaimed for urbanization and development of a kind of "sea culture."

Perhaps such man-made islands might be developed as hurricane buffers in the Carribean to mitigate, or deflect, tropical storms.

Perhaps it is not science fiction to even postulate development of techniques, to tap in a controlled manner, volcanoes, and thus go continent building in selected regions of the oceans. Land, even today, is a premium. What will its value be a century hence?

Miscellaneous Frontiers:

There are many other frontiers that I might cite. Many are urgently needed. For example, in the recreational domain we need a vast expansion of man-made lakes. Los Angeles has a need for 100 Lake Arrowheads, yet the prospects for the second one is nearly zero. We have a need for more city parks -- or better, a universal urban environment that is a city, yet a park, yet a home! New highways can and should be built with parallel "recways" for the pedestrian, the horse, and the bicycle.

Air terminals can be designed with surrounding moats for recrea-

tion, for noise abatement, and as a "Wall of China" to halt encroachment by industry and the housing developer. Los Angeles could lead the world in development of such an improved synergistically related air terminal for its supersonic transport. Public land purchase of a mile-wide belt of land around its present terminal with subsequent conversion to a lake for recreational and other aesthetic needs, would give Los Angeles a more viable and accommodative operational format.

PLANNING FOR THE CITY OF THE FUTURE

We hear and read nearly every day, the wise counseling of prominent city planners, academic professionals and government officials that " ... we must plan the cities of 1980 today." What a bold thought! But this date is only 15 years away, and is best termed the "here-and-now." 1980 is upon us like a flash, and to claim that our cities of 1980 will look much different from today, except larger, is to overlook the fact that our city building endeavor of today is nothing but works of "face lifting." Our city building, our urbanization endeavor, is one of growth by the addition of "lean-tos"; a practice of only urban-renewal -- never that of urban-newal! Patchwork at the city center, and fungus growth of dull repetition at its perimeter.

Our plan for city building -- our plan for regional, national, and global urbanization, must be more encompassing than the year 1980, or even the year 2000. Our plan for city building must be a concept to build the cities that will be an accommodative structure to yield a

desirable environment to the culture of man for perhaps the next thousand years. We need today, and we can build today, easier than in all the history of man, the living cities of the future that will outshine the gem cities of the past -- the Alexandrias, the Constantinoples, the Athens, and the Romes.

The year 1900, I believe, was the turning point of the urbanization of man. At the turn of the 20th century, a host of new, vital, modern devices were exposed by the inventor -- the automobile and the airplane for mobility; the radio for communication; and ad infinitum.

These inventions were vital instruments on the urban front. With 65 years of hindsight, we now should conclude that the old city format, nurtured for some two or three thousand years, should have been given a quiet burial, or preserved in a museum at that date. But, no! We nursed along the old city format and did our best to squeeze the new modern conveniences into this old format. Some of these modern devices richocheted back out as did nearly forty of the small airports in Los Angeles County.

We have spent the last 65 years in urban renewal, never urban newal, the building of entirely new cities. Some may argue that one can never keep up with change, yet as far as urbanization is concerned, the technological renaissance of 1900 may not be surpassed for many years.

Perhaps we have needed these 65 years to develop the supporting skills to make it feasible to apply the inventions of 1900. If this is the case, then let's get on with the task of city building for century 21 and the succeeding thousand years before the next major ripple of advance-

ment on the urban scene appears. By this remark, I do not wish to discount advancements of the past decade, but most only modify or extend the 1900 inventions in mobility, communications, etc.

To consider the city of the future we must look past the mundane patchwork solutions of the here-and-now to the future capacities and needs of man on a greater scale than only to satisfy the mere 200 million in our present population. Our present efforts at city building are not so much aimed at satisfying future needs but rather satisfying past wants and shortcomings. Our effort should principally be given to shaping the urban environment to properly house the next 800 million citizens of the U.S., who will be spawned internally, or thrust upon us, but hopefully invited, from the global masses of overpopulation. And we must offer our aid in building cities throughout the world for the likely addition of another ten or more billions of people.

To think of urbanizing the globe, we need to think as synergistically-minded social engineers. To do the best possible job in shaping this world city, termed the "ecumenopolis" by Doxiadis, we must try to wear the framework of thought of the synergist.

We need to recall the history of cities, as a Lewis Mumford; to encompass the city and regional planning skills of a Victor Gruen, a Doxiadis, a Gutkind, a Frank Lloyd Wright, a Le Corbusier; to think as the demographer as a Karl Sax; or population control protagonist as a Dr. Guttmacher; or geneticist as Dr. H. Muller; to identify the resources of man as a Harrison Brown, or a Roger Revelle, a William O. Douglas; to relate economically and morally the operational scheme of man as a

Theobald, Harrington, or a Galbraith; to synthesize the consensus of the public and government for action, rather than lethargy, as a President Johnson; to enclose the creative thought of the educator as a Robert Hutchins; to link the past with the future as the poet -- a Sandberg or Frost; and to instill a higher order of consciousness in the society of man as a Chardin.

We need to think as the synergist to shape the world city of tomorrow. We cannot think as specialists, or as teams of specialists, for our goal is to escape from the sordid urban world that has been shaped by the works of "overspecialization" and the "etiquette of specialism." We need to think synergistically -- to combine our capacities, needs, and resources to achieve an amplification of their value, not a degradation.

To be able to speak or listen fluently as each of the above, but from a single mind, is not our choice. But we do have the capacity to develop talent that will enclose a far broader understanding of the society of man than we are now doing.

We are today tightening the constraint of overspecialization and the etiquette of specialism. Technology is fragmented to the point of exhibiting a boring array of splintered industrial activities. Universities are the willing dupes of both industry and government in producing from its departmentalized disciplines an assembly line of specialists to fit, as pegs in a hole, the technocratic demands of industry and government. In the university, interdisciplinary association means the biologists talk to the microbiologists. And government in its reluctance

to think beyond next year's fiscal budget or at best, only five years into the future, reduces the affairs of man to an excruciating daily grind of technocracy.

We need to encourage the development of a vast group of broad synergists who will have the capacity to better synergize the powerful forces now loosed on man. We need the "synergist," or if you will, the "theoneticist" to achieve a more meaningful relating of man's capacities and needs with his living environment and resources. These "synergists," or "theoneticists," are more than the existing "systems manager," or generalist, or "integration contractor" of a ballistic missile, though these are now claimed by industry as having just the right mix of skills to execute the major contracts now arising in the President's program for the Great Society. To acquire this synergistical leadership perhaps the only solution can be by a bold new academic curriculum to produce, in the university, a new school of thought for the synergist. This is not to be interpreted as present-day efforts of university centers toward "refurbishment of tired minds." For here the effect is lost by returning this refurbished talent to its original home base.

To talk of planning for the city of the future, I cannot claim to do so from a high order of synergistical knowledge. At best, I can only scratch the surface of the facets of society comprising the phenomena of urbanization, and briefly touch on key problem areas. It would be nonsense for me to speak of the Cities of Century 21 without beholding the bigger problem of urbanization of the entire continent of the U.S. -- even to the boundaries of all North America. And it is false to talk of

urbanizing America, or the Western Hemisphere, as a single problem, for we must concern ourselves with global urbanization -- the matching of human capacities and needs with global resources. The rest of the world will not likely rest easy while we, the Western world, rest fat and happy! That is no small subject. For me to try to do less would only waste your time and mine!

FORMATS FOR CITIES OF THE FUTURE

I want to speak briefly concerning three key questions that relate to the format for development of cities of the future.

Let me ask, "What will the cities of the future look like if we are reluctant to change?"

"What will the cities of the future look like if we continue to promote science and technology as a sacred cow? Patriotic militarism as a sacred cow?"

"What will the cities of the future look like if we design them with a synergistical and moral viewpoint?"

Of the first, a sustained reluctance to change will only give us a massaged format, not a new environment benefitting from new plateaus of technology and social understanding. Living in the cities of 1980, or 2000, or 2065, only massaged and adjusted -- not designed to fit a doublig, a tripling, or a quintupling of population, or to yield to new technology, will be to wear the constraints of a strait jacket.

To synthesize the cities of the future by the exploitation of an unfettered technological expansion will be to encase society within the

rigid coccoon of a machine world. To shape the city of tomorrow by even extending today's creeping paralysis of the military mind, now making inroads into every facet of the society of man, will yield at best a totally armed society -- at worst, a totalitarian camp of inhuman robots. The seed beds of a vast number of military cacotopias and Miltowns now dot the U.S. landscape, and these have been proliferated by every nation on the globe. Lewis Mumford, though describing nearly every format for cities, the Coke-towns, the Garden City, and the Megalopolis, has yet to describe the newest form of totalitarian urbanization -- the military cacotopia, and the fringe cities of the military base, best termed Miltowns. Robert Jungk, author of "Tomorrow is Already Here," speaks of these in his 1954 book. The expansion of these urban environments has exceeded since that date, nearly all other forms of urban growth. It is not inconceivable that these cacotopias will reach out to become metropolitan in size.

IMPLEMENTATION OF CENTURY 21 URBAN CENTERS

When I speak of century 21 urban centers, I am referring to entirely new urban environments -- urban "newal," not "renewal." These may range from the small-sized city to the universal urban/rural environment, having no upper limit -- not a homogenous repetition but a dispersed and diversified environment.

Instead of the inefficiencies of cities pulsing to the beat of stop lights, century 21 urban centers of regional proportions, could be built without a stop light. In America today, the inefficiencies of

stop-lighted cities for our present 200 million people, when integrated over a century of time, would likely pay the bill for developing wholly new century 21 urban centers for the next 200 million people. Our present plan is to saddle a total of 400 million people with a stop-and-go society by the year 2000. Let's use our transportation as an instrument of mobility, then shape the urban terminals to promote man's oldest means of transportation -- his feet. Our cities of century 21 should exploit mobility -- neither crowd it out of existence, nor turn it off and on!

Victor Gruen presents a clear, simple discussion of our three common philosophies employed in planning -- laissez faire, autocratic, and democratic planning. Of laissez faire planning, Gruen states this "... actually is not planning at all. Its advocates -- and many thoughtful people must be counted among them -- feel that things should be permitted to grow freely as individual wishes, needs and requirements bring them about, with only the most essential policing measures to prevent 'criminal' actions in which one individual or group of individuals seriously endangers others."[13]

Of autocratic planning, he observes, "It is the method that was employed in the past by monarchs and other autocratic rulers... It is the method by which large portions of cities can be rebuilt practically overnight, and which whole new cities like Brasilia, can be created in a few years... Some of our monumental but dreary 'civic centers,' 'cultural centers,' and 'centers for the performing arts' isolate higher urban functions into ghettos, creating sterility within them and impoverishing the remainder of the city outside their boundaries."

13 Victor Gruen,"The Heart of Our Cities," Simon & Schuster, New York 19 pp. 35-39.

And on democratic planning, Gruen notes that " ... democratic planning, which although its implementation is the most difficult, most complex and most time-consuming, is ... the only one that holds out real hope for us."

Of laissez faire planning, Gruen sees it as " ... a luxury we can no longer permit ourselves to indulge in." Of autocratic planning, he sees this as an effective organizational format " ... if it were guided and implemented by supermen." And of democratic planning, he asks, "Is planning possible in a democratic society where every single step has to be negotiated, has to be subjected to public hearings, and very often decided upon by vote?" His conclusion is that creative planning can be democratic as well.

Gruen presents an interesting concept for a multi-million population cellular metropolis of the future.

Gutkind presents in his excellent book, "The Twilight of Cities," a new discussion on urban decentralization and dispersal -- a concept, in essence, for a universal urban/rural environment, matched to fit the regional characteristics and resources. His concept for regional development is a close parallel to that practiced by David E. Lillienthal within the TVA program.

Doxiadis, international city planner and architect, defines his philosophy of "ekistics" as " ... the science of human settlements."

Victor Gruen presents only a single concept to which I can take exception. He expresses strong doubts that if we so elected to try, we could not build enough entirely new cities to house the nation's burgeon-

ing population during the coming decades. He states, " ... there are many who long for better cities but feel that the existing ones are utterly hopeless and should be left to their tragic fate. Instead of sinking any more money or effort into them, they say, let us start to build new, shining ideal cities in new locations. Now, there is no doubt that some new cities will have to be built to take care of the explosive growth of our urban population, but even with the greatest national effort, we will be able to take care of only an insignificant percentage of urban newcomers in new, favorably located urban organisms in the next forty years."

I do not agree. Regardless of the locale of the future population, housing accommodations will be provided, electrical power will be generated, sewage lines will be installed or enlarged, and extended, and more highways will be built to serve his needs -- or a portion of them. Because of a steadily lowering efficiency of all these mechanisms to stretch the city, and the need to build, tear down, and rebuild components of the municipal services, many times before the lifetime of the system has been realized, I sense Gruen's conclusions are wrong. It is my premise that it may cost $2 to add a family to the perimeter growth of Los Angeles for every $1 it costs to accommodate the family in a new century 21 urban center. There appears to be no proof of this in the literature of city planning -- nor refutation of it. Perhaps in lieu of quantitative proof that we can or cannot afford "new cities" we should simply be empirical. Perhaps it's worth an experiment. We think nothing of building unused supersonic bombers costing $1.5 billion for first

flights and multi billion dollar lunar rockets. Los Angeles has only a value of about $60 billion -- the equal of the defense budget or a decade of space flight.

Let me turn to a plan for implementation of century 21 urban centers. A suggested schedule of events may take the following format:

1966: Employ the new Department of Urban Affairs within the U.S. Government to establish policy, provide guidance, and seek improvements in urban affairs for the long-term future, through and beyond century 21. Develop legislation for new private and public land use acts.

1966-67: Establish a National Urban Affairs Agency to execute the diverse urban study programs and the architectural and engineering contracts for urban development and redevelopment activities (this latter part is similar to the President's 1966 legislative program for a "Marshall Plan for Cities").

1967-70: Award multiple three-year contracts on Urban Center Population and Dwelling Data Surveys and Analysis, Transportation Characteristics, Power and Water Requirements.

1970-73: Award multiple three-year contracts on Urban Center Dynamics Analysis, Development of Metropolitan Area Population Density, Dwelling Density, or Zoning Equations specifying maximum desirable urban dwelling density limits and maximum metropolitan total area limits.

1973-76: Award multiple three-year contracts for Urban Site Surveying and Development Planning.

1976-2000: Initiate construction of 20 to 50 new Century 21 ·ban Centers.

2000-2100: Expand format of Century 21 Urban Centers to fit the long-range population growth.

CONCLUSION

My purpose has been to encourage taking the long-range view of man's future development. Century 21 must be included in our perspective of the future eventualities of man. It cannot long remain the "twilight zone of thought."

We must search for the broad spectrum of new frontiers; to expand the mechanisms for democratic planning; to identify the new rationale for achieving a consensus; and all of these while mindful of "a moral ordering of invention."

We must be cautious in viewing all so-called technological activity as progress, for much of this is in fact, un-progress. Technological advancement has too frequently been the camouflage for a destruction of nature. Technology often is a destructive force, the expression of failure in man's exploitation of nature, as the amassing of weapons, the expression of failure in the sociopolitical domain.

I have not given you a scenario of century 21, nor even the boundaries of possibilities. We must increase the efforts of this Symposium on Theonetics a thousand times over. The new frontiers before man are awesome to comprehend!

Hopefully, we can pursue a "line of constant frontiers," or better, a "line of increasing frontiers." To follow the lead of an

oppressive technocracy may give us a parallel to "the spectator sport" -- it will promote a preoccupation with detail and specialization to give us little more than "spectator life." Invented man will gaze unseeingly at the museum remnants of human life.

Let me close with an optimistic note!' Science and technology with a moral ordering of invention can yield many challenges in century 21. If we can miniaturize electronics, why not life? Scale the size of man to fit a constantly expanding frontier line -- a drop of water could make us all a Columbus!'

P A N E L

NEW FRONTIERS FOR CENTURY 21

by

Norman V. Petersen

Question: Since the population explosion is a religious problem for the great bulk of humanity, how are we going to break through to the Asiatic people, for example?

Norman Peterson: Half the world today has never talked to the other half. Speaking of the United States, we can't play much of a roll in the world, if we at least don't talk to them someway. I know it would be no small task to establish good communication, and even at best it is going to be difficult. We can hardly talk with the East Coast of the United States and visa versa, let alone across the Pacific Ocean. Solutions will have to rely on reordering world communication. We certainly will have to find some ways of talking to each other.

Question: To have this world control, in reference to the population problem, we would need world government. Do you think there is a possibility of this happening in this century?

Norman Peterson: Well, we have a form of one now. It doesn't work as perfectly as we would like to see it and it certainly isn't going to work as perfectly as it is needed. Again, we need to develop a mechanism of communication. We don't have this, even in Los Angeles. We have City Councils, we have City fathers, but they speak rarely, apparently because all of us can't fit into City Hall. Somehow we have to develop the mechanism for Democratic action at all levels, from the grass roots level all the way to the top. We need more forums, like this one.

Question: You used the phrase "diaper industries". The Old Testament promise to Abraham was that his chosen people become as the sands of the seashore. How can we turn the tide of thinking from the truth of quantity, which seems to dominate the whole world, to a pursuit of quality that you spoke about?

Norman Peterson: I really can't answer your question. The forces at work in this direction are very small. Somehow we

need to develop a competition for ideas, not a competition for look-alikeism. It is much easier to follow suit than it is to pursue new ideas. We ought to have a competition for new ideas, a free mental-prize, (if you will let me use a new word.) Competition for ideas, rather than free enterprise in things. We need to set aside a segment of the nation to ponder the future. There are too many of us already in the wrestling match of todays affairs; it simply isn't needed. The team on the field is overweight.

Question: You spoke about the up coming age of leisure. The cybernetic revolution is supposed to bring us to the place where 2% of the population will produce the goods for the other 98%. The impact on jobs is going to be terrific. How are people going to have any income? Would you comment on Robert Theobolds proposition about guaranteed annual income?

Norman Peterson: Consumers have to be buyers. Somehow we have to work out the equation so that you are also a buyer, since we insist on keeping score by an economic system. We are already making shifts in those directions. Profit sharing plans are one way. We still insist on an 8 hour day, at least putting in an appearance. We can identify some of the mechanisms of unwork, but there are many of these that are justly hidden. We erect these mechanisms of unwork. Certainly labor does, and technologists are just as good at it. We erect these "mechanisms of unwork" to cloak the fact that all of our time is not needed in the present ball game. We are going to have to somehow and soon, identify this time of unwork, and keep score on it. We can produce much more of our goods right now by automatic factories, if we wanted to, if the unions would permit it. But we are unable, between managment and industry, to work out an equation of transferring wealth to people without working. We are doing this now in many ways, but we don't always indentify them. We are surely going to have to do this more and more unless we identify the massive, giant, meaningful frontiers which would enable us to put everyone to work on an eight hour a day.

Question: I am wondering, if in your conversations about the kinds of avenues where the dialogue would continue, whether the University is the place for it. It's part, you know, of the industrial, federal government complex. Is there the faint hope that maybe the church is the place this kind of conversation will take place?

Norman Peterson: A lot more could certainly take place, otherwise we would hold this meeting in a big church. There are many churches in Los Angeles that seat this many people. How many parts of a city are planned from the church basement? There is probably more city planning done in a cocktail lounge (and more meaningful planning) than in churches! Churches don't provide the

accomodations. Most of these are shy of funds to provide the meeting rooms for the engineer and all the other elements of people that need to meet together.

Question: How much time do we have to stablize before war, famine and disease will solve the population problem? Do you think there is a possibility that men will think this is an easy way to solve the population problem and become more militaristic?

Norman Peterson: One can do many things with autocratic forms of government. There are three kinds of planning: laissez faire planning, autocratic planning, and democratic planning. One can do many things with autocratic action, but surely that isn't the course we need to follow.

There are many mechanisms sighted by Malthus already at work. There are people dying of famine. There are food shortages right here in the United States. Many of these forcing functions are at work right now shaping our society. On the other hand, we are also alleviating many of these. The new drugs are an example, but they are creating almost as much of a problem as they solve. Malthusian forces aren't combining in the future, they are combining right now, today! One can argue that we can put the whole world population in the state of Texas, but when you add on trout streams, school yards, and open expanse to dream by, it expands beyond the globe, even beyond our own globe. Perhaps we could double our population or even triple it, but we certainly can't just add on and let our urban growth be our perimeter growth. We ought to seek some way of dislodging some of this and distribute the population, giving each man greater opportunity.

Question: This population explosion has to be considered in the international problems of disarmament. How can we break through on international problems so that there can be a reduced armament race. Would this not lead these people to be employed in a more meaningful, "futuristic" approaches?

Norman Peterson: We ought to be careful that we aren't accomodating to the giant size of the military forces. We ought to somehow develop mechanisms for quick recall, if necessary, but shape the defense we need to fit the track.

Question: One of the most frightening things I heard you say, other than the population growth, which already scares me: you draw a picture of all the technological brains standing behind this facade of security working in this shadow. How are we

going to lay hold of enough information along this line? How are we going to lay hold of enough information to stand in a qualified and responsible way to make this kind of thing known? I don't have my hands on enough information at all, except to speak in very general and emotional tones about this kind of thing.

Norman Peterson: We are all aware there is city planning going on. We are all aware there is racial and national planning going on. We ought to just raise the question and also raise the hand and knock on the door to find out if you can have access. In fact if we can't have access as a free society to the things that are being done to shape our society there is something wrong. Most of you could not have access to the plans that are involved in shaping the environments of California. The operation ought to be so simple in a free society that we all should have free access to these things that are being developed to shape our society. This exists to some extent, but not as much as it should exist.

Question: You sound like a member of SS in what you are saying about the radical structuring of the society, in the fact that we are closer to a totalitarian decision making operation, as a country, than many of uswould be prone to accept. What other imagery do you use beyond the twilight zone, if there is more hope in the decision making process? Decisions are going to have to be made. You used the illustration of poets and perhaps religious thinkers being involved in these present "totalitarian" structures, where these decisions are being made. I am assuming if this kind of decision making continues in our society in the next 35 years, that the twilight zone would be the correct image that you have of the 21st century, but if the process of decision making opened up, what image would you use to describe the 21st century?

Norman Peterson: Well, I guess I can't really answer your question. The people we have involved in long range planning now are extrapolating the past with a great deal of linear extrapolation techniques, all for a quarter of a century at best. Most of this extrapolating for quarter century is done based on past performance. It isn't particularly shaped by rationals of the moral ordering of invention. The men in Detroit are delighted with the prospects of the automobile production, but it means the death of people in Los Angeles, because we are not clever enough to keep up with it. Production in Detroit shouldn't be just a single thing, like a cell, it ought to fit the problem. We have no people today that are literally pondering what to do beyond this quarter century. In my opinion, we need a vast organization to identify these choices to us. We consume most of our time today in bickering about doing one single thing.

Each of us could be aware of the fact that some effort was given (by acceptable minds and reasonable talents) at looking at the

many choices. Then we would accept the various decisions. There should be a little bit of follower-ship, also, beside leadership. If we were conscious that our ideas were among the spectrum of choice, we would accept the decisions a whole lot easier. As it is now we spend most of our time bickering that we don't agree on that one choice. And we don't like the second one either. But that is all the choices there are.

Question: Your former relationship with the military is over. You indicated you are now serving in your first day as President of Resource Synergistics. What will your company do to help solve the social problems that you mentioned? What is Synergistics?

Norman Peterson: Synergistics is a delightful word. A form of it is in the dictionary and its never used. It is a word that really expresses faith in the future of man. Synergistics doesn't appear in the dictionary but synergism does. Synergistics, I have added on the ics to identify it as the science of reason, synergising man's capacity and needs with his resources. We have long had companies that extract ore and metals out of the ground, such as International Nickle Company. General Motors combine metals into higher orders of things. We have companies like General Dynamics which combines things, system-wise, into a higher order. I have only picked out synergistics as a higher order of combining a moral ordering of invention, if possible. As a company the purpose is to try to follow regional, as well as national planning.

Question: Do you find a communication language barrier between technological and intellectual thinkers?

Norman Peterson: To protect our own vested interest we develop our own pet jargan. This assures the perpetuation of specialism. Perhaps it is done partly to be polite to the other fellow so that we don't have to let him know that we know he is ignorant.

Question: What is your view of man, how would you approach a man in dealing with his problems?

Norman Peterson: We certainly have a lot of mixed emotions, a lot of personal vested interests. We aren't very creative in identifying the spectrum of choice before us. How do I view man? Well, I am not real sure how I can answer it. I really can't comprehend man to a very great extent. I can't understand our 14 year old boy very well. And my wife, I am at a complete loss.....

I N T R O D U C T I O N

for

Charles S. Thomas

The second speaker in this second symposium is known **to many of you. If you live in Orange County you will know him as your neighbor to the south....for as President of Irvine Ranch he runs a ranch that covers 93,000 acres. 20% of Orange County, and it is still a ranch in the truest sense, planting over a hundred thousand trees a year. But if I tell you more I might be stealing part of his talk!**

Our speaker was born in Independence, Missouri. A few of the responsibilities he has held includes, President of TransWorld Airlines, Secretary of the Navy under President Eisenhower, and President of Foreman and Clark.

He has received numerous decorations including the Presidential Medal for Merit and the Navy Distinguished Civilian Service Award for War - time Service and the Exceptional Civilian Service Award.

He has honorary Doctor of Law Degrees from LeHigh, Villanova, Bryant, University of Kansas and University of Redlands; and a Doctor of Science from Chapman.

He is on the board of Directors of a number of Southern California firms. From 1954 until 1958 he was on the Bishops Committee for Layman's Work for the Episcopal Church. In 1960 he was Vice President of American Bible Society.

I first had an opportunity to watch this concerned and busy executive three years ago when he threw his full weight behind a Boy Scout capital fund drive for the southern section of Orange County. He had to spend hours of time, talent and energy obtaining funds that ultimately went for Scout facilities....changing for the better the lives of our youth.

I also had the privilege of meeting him through a member of the Council of Presbyterian Men, Council member, Don Heeps from our San Pedro church when we were both invited to eat at the Ranch and discuss this symposium. Again here was a busy man who grasped the importance of talking to you about PLANNING FOR MAN'S AESTHETIC ENVIRONMENT, entitled "Man in 1980" ....President of the Irvine Company, Mr. Charles S. Thomas.....

The cities, their need and their future, their financing----these are the great unspoken, overlooked, underplayed problems of our times....

John F. Kennedy, 1962

Our society will never be great until our cities are great. In the next forty yours we must rebuild the entire urban United States. There is the decay of the centers and the despoiling of the suburbs. There is not enough housing for our people or transportation for our traffic. Open land is vanishing and old landmarks are violated....a few years ago we were concerned about the ugly American. Today we must act to prevent an ugly America.....

Lyndon B. Johnson, 1964

You have never sufficiently foreseen how enormously rich and populous a nation you are going to be....

James Bryce (British Ambassador to the U.S., 1906-1913)

The misery and squalor which we people of civilization bear with so much complacency as a necessary part of the manufacturing system is just as necessary to the community at large as a proportionate amount of filth would be in the house of a rich man. If such a man were to allow the cinders to be raked all over his drawing-room, and a privy to be established in a corner of his dining room, if he habitually made a dust and refuse heap of his beautiful garden, never washed his sheets or changed his tablecloth and made his family sleep five in a bed, he surely would find himself in the claws of a "commission de lunatico." But such acts of miserly folly are just what our present society is doing daily under the compulsion of a supposed necessity, which is nothing short of madness. I beg you to bring your commission of lunacy against civilization without delay.....

William Morris
"Useful Work Versus Useless Toil"

MAN IN 1980

by

Charles S. Thomas

My subject is "Man in 1980", with particular emphasis upon where he lives, works and plays. Let us remember that volume home building started after World War II. The lack of home building during the war, five years of war with families doubling and tripling, and the large migration of people into California at its conclusion, created a tremendous demand for homes, Home developers, small and large, were really a new breed for they hadn't been of any size previously. They jumped into the house building business. They bought tracts of land for a relatively few dollars per acre, bulldozed palm trees and orange groves, built asphalt pads and covered them with thousands of monotonous tract houses. Anything at that time sold and land values pyramided overnight. Clusters of poorly designed stores were built and stretched for miles along many of our principal streets and boulevards, ruining many of them. Industrial plants were built with no eye to attractiveness or design. There were few, if any, parks or green belts or recreational areas designed or built in so-called subdivisions. There was practically no planning. As you well know, we are now paying a very high price for that in many of our areas.

All of this is changed now. The housing boom reached its peak sometime ago and land prices have leveled off. Most areas are overbuilt and we have a buyers market. Home buyers today insist, and in about this order, on good environment, good location, good architecture, good design and construction. To satisfy these demands sound and creative long-range planning is essential.

With this background let's look at the living environment which can be made available with good planning to man and his family come 1980. Here I will endeavor to stay out of the planners technical domain. Rather I have chosen to deal with some general ideas which I hope will be of interest to everyone concerned with what our great land and state may offer to its resident in 1980.

As the next fifteen years unfold, we can count on a continuing flood of residents moving into California. The forecasted increase in population should motivate us to work closely together to evaluate and enhance many assets of our communities, together with the land that surrounds them, and do everything possible in providing the finest in man-made living conditions.

If we are to accomplish such a worthy goal in California it is important that some time be taken from our busy lives to reflect on what it is that we have here that is attracting so many. Perhaps more than anything else, we are blessed with magnificent geography and a fine mild climate over most of the state. We have hundreds of miles of beautiful coastline offering unparalleled vistas for residential and commercial development, as well as waterfront and recreational areas. From one end of California to the other there are vast panoramas of harbors and bays, there are thousands of square miles of fertile valleys fringed with rolling hills and backed up by majestic mountain ranges providing an endless variety of scenic beauty. Orange groves, orchards, grape vineyards and field crops offer spacious green belts as a relief from the congestion of urban sprawl.

In providing and maintaining the best in living environment our first responsibility is recognition of these marvelous natural resources. We must constantly work toward preserving such topographical assets as valleys, hills, beaches and water ways. During World War II and in the decade that followed we learned a great deal about land leveling, earth moving and site preparation. As we look about we wonder if we have always used this to good advantage. In many cases we have not.

In many communities we seem to be obsessed with the desire to destroy our hills, to obliterate nature's geographical relief from landscape monotony and to substitute square mile after square mile of level asphalted residential and commercial areas. Can you visualize what that beautiful City of San Francisco would look like had its pioneers and early builders wontedly leveled its many hills so that they could build on level ground? Whether we are talking about Oakland, San Luis Obispo, Hollywood or San Diego, it is variety that lends so much beauty to these communities. Intelligent planning for the future should incorporate not only the preservation of our hills but the best in man-made efforts to compliment them.

Another possibility involves the urban-suburban blend of open spaces, fine architecture, commercial centers, recreational and cultural facilities, the industrial complex and residential communities. While we are busy providing the necessary schools, fire stations, roads, libraries, homes and shopping centers to meet the needs of our burgeoning population, we should not lose sight of the important and best considerations in all man-made contributions to our environment. As our society has become more educated and as the work-week has shortened and allowed more leisure time, as the population has become more affluent, the demand for and appreciation of the physical environment has and will continue to become the prime motivational factor in the determination of where to live. Therefore, we must concern ourselves with the design of surroundings created and built by man. A better, more liveable and beautiful environment has and will continue to become the prime motivational factor and should become our first priority in planning for the future.

There are those who have described our urban efforts as "the mess that is man-made America", and to some degree I think they are right. As we approach many of our cities, our gateways range from slums to railyards, to used car lots, to junk yards, to makeshift amusement centers. Our cities certainly demand our attention. The population expansion and the desparate need to replace obsolete structures, from schools to slums, offer a great opportunity to turn the state's urban centers from a so-called "mess" into efficient, harmonious, liveable and beautiful environment. It is my feeling that as a nation we are becoming hungry for more beautiful buildings, well designed streets, havens for culture, attractive downtown malls where people can relax and enjoy the water patterns of the fountain, or the beautiful sculpture against green lawns, flowers and trees.

Perhaps we can take a lesson from the builders of Paris, Copenhagen and Stockholm. They designed these cities for the enjoyment of the people and it makes the whole scope of the city interesting and magnetic. The designs were not intended solely to increase the business of the merchants. However, the attention to esthetics does pay handsome business dividends. Witness the success of the malls in Pomona and Fresno.

Particularly we should not be content with the residential community offering only dreary uniformity because of the regularity and monotony of block after block stretching in rectilinear fashion with one subdivision after another. We can create variety in our communities by building on the hills and in the valleys, by balancing modest homes with luxury homes, by intermixing single family residences, garden type apartments, and high-rise apartments, and by providing generous green belts and recreational areas. We are beginning to think more and more about various kinds of urban cloisters, more about recreational and cultural centers, university communities, satellite townships, and regional, medical and trade centers.

There is a growing desire for environmental beauty among the American people. For example, in Philadelphia, and this is no accident, there is an ordinance which provides that one percent of the construction cost of every public building will be devoted to some art work which will enhance that building. The City of New York has an art advisory council to assist public housing authorities in placing art works in its projects.

The criteria of beauty can be employed in a very comprehensive way. In our homes and buildings we can employ the best use of texture, structure, color, light, surface and form as components in creating space which will satisfy man's insatiable search for beauty. We can design and build our public facilities, such as city halls, libraries, schools, and hospitals, with emphasis on pleasing appearance as well as space utilization. Shopping centers, office buildings and industrial plants

can profit from the placement of beautiful structures in park-like surroundings. We can create parks and other forms of landscape green belts and line our streets with trees. We can offer the maximum in good environment if the areas to which citizens go to satisfy a wide range of human needs have their own pleasing and easily recognized identity.

One of the great concerns of the modern day planner, is the apparent decay of the downtown areas of many of our cities. The combination of forces which may be causing this to happen in cities in our great state can be altered. The City of Los Angeles is now taking bold steps to correct this situation. It may be stated that the downtown area with its many handsome new office buildings and the new civic center is experiencing the first phases of a renaissance.

Further, as we look about us we observe that our vast agricultural lands are an important symbol of America's heritage. In California, of course, this is our number one industry. The everchanging vistas of fields and orchards serve as a reminder that our citizens must be aroused to the problem of vanishing open spaces because space is our most precious environmental commodity. We must take steps to halt the reckless and scattered invasion of prime soil in farms and forests by industrial and housing developments. Otherwise few if any open spaces will be left within a reasonable distance of our urban population. If we permit helter-skelter, leapfrog developments to continue there will be neither agricultural, scenic or recreational advantages remaining. Again, Californians are indeed fortunate in having the many beautiful natural environments that abound within the borders of our state. But there are almost unlimited opportunities for continuous further development in complimenting the natural acres with those man designs.

If I may I would like to offer as evidence of what I have been telling you what we have in the development of the Irvine Ranch in Orange County with its 90,000 acres, representing 20% of the county. This ranch was acquired first by Mr. Irvine in 1864 and has been held in tact in one family for over 100 years. The advantage of holding intact and not letting it be developed or sold off in small parcels is that it can now be developed under a long-range master plan which incorporates all of the advantages and opportunities about which I have just been speaking. In the opinion of our company, there is no property like it in the world: there is no opportunity like it that we know of to make a real public contribution to good living and to man's living in 1980.

I N T R O D U C T I O N

for

Calvin S. Hamilton

Our final speaker in this symposium is probably one of the busiest people in the city. I have been keeping a scrap book on all the times his name hits news print and it happens every few days. The most recent of which was in Art Siedenbaum's column having to do with Membership in the Regional Planning Association (RPA) for people who want to work together to help beautify our city. Then on the twenty fourth of October, our speaker's thinking showed up in a Times editorial when he was quoted as saying that at present "Los Angeles is an enormous, sprawling non-entity"...."without direction and goals", and he warned, "it will soon be a non-city".

This is the kind of man we want and must, hear. He has heavy responsibilities in DOING something about all this. The editorial went on to say..."those who would make Los Angeles something more than a non-city should give strong support to Hamilton's determination to give the metropolis its first comprehensive master plan...it will be an immense undertaking requiring the cooperation of EVERY ELEMENT of the community."

He was graduated with highest honors from the University of Illinois in Fine Arts and Landscape Architecture. He received his Master of City Planning from Harvard University in 1952. And for a year was Research Associate, University College, Department of Town Planning, University of London. He was recipient of a Rotary International Foundation Fellowship for Advanced Study.

He has been involved in city planning at Cambridge, Massachusetts. In St. Louis, he was with a company doing city planning consulting work for cities throughout the entire United States. He was Executive Director, Metropolitan Planning Department, Indianapolis...then in 1961, he was Executive Director of Pittsburgh Department of City Planning.

He was chosen in 1964 by our city to fulfill the job as Director of City Planning Department...a job they long sought to fill with the right man because of the intense problems associated with it. He is on the General Board, National Council of Churches and also a member of the Joint Urban Advisory Committee, the National Council, Protestant Episcopal Church. When we first discussed his participation in this symposium (over a Taco at Olvera Street...a lunch that extended for two hours), his enthusiasm was great....he too wanted to talk to you... and he is a very busy person, but I think he has a "message" for us:

It's entitled "LOS ANGELES TOMORROW", City Planning Director, Calvin S. Hamilton.....

LOS ANGELES TOMORROW

by

Calvin S. Hamilton

I am pleased to speak to you because I am interested in the role of religion in American cities. As a matter of fact the very first thing I did when I came to Los Angeles and began the Goals Program was to help form an inter-religious council of religious leaders, Protestant, Catholic and Jewish to begin tackling the questions of the kind of goals and objectives in this region. I did this because I felt that the theologians and ministers and those of other faiths have much to contribute to help determine just what the fundamental human needs of the city are; just where the city should be going, whether or not the city as we have it is the kind we want.

What I thought I would do first is to indicate changes which I have thought about in the past which might occur in Los Angeles in particular and then go into some of the aspects of fundamental planning for the city we hope to someday achieve. I think before I go into that, I might just make a comment about the Irvine Ranch program. I have been very impressed with Mr. Thomas's plan. There is no question that the architecture is most interesting, but there is a great difference in trying to rebuild an existing city and starting from scratch.

What makes an existing town so interesting to try to reshape and replan is that you are really dealing with the dynamics of American civilization, and the question is how can you do a better job? It seems to me that the dynamics of the urban environment are really self evident to all of us in the urban scene, and never before in the history of any civilization has change occurred so rapidly. I will give you an example. I have a number of sub-dividers who are planning a 3 to 5 to 10 million dollar low apartment house investment, and they only anticipate leaving these up for ten years and then they will be torn down and replaced with 20 story buildings. So the mobility of urban population not only occurs geographically in the movement from rural to urban area, but expresses itself in urban areas horizontally from central city to suburb and from suburb to rural and then from the urban fringe back to the central city, we hope. But the less readily evident are the structural and vertical changes in people's attitude, living habits, and their desire for changing urban environments. Mobility and changes in income bring changes in opportunity for obtaining the good life that the average American envisions. All the results from increased equality of opportunity

and the demands generated by these changes create a dimension with which this paper will concern itself.

Our first consideration, therefore, is how we will live in the future American city. What will mobile people require if they are to satisfy the needs of childhood, of youth, of the young married years when just beginning with children, of the middle-age family with grown children, of those families whose children have gone and the older years. This fact of the changes which each of us faces in our lives is a dimension that we have to think of in its total dynamics. Now you have just seen the plan of a new city in which they have done an admirable job of trying to build in terms of single family houses, cloister houses and multiple family houses. That is how you get, not only income but the structural changes which families go through, so if your kids leave and go to college you can move to an apartment near-by or a house with a smaller yard. The ability to find a variety of housing either in one's own immediate area or in the neighborhood will be of increasing significance. We will demand a fuller range of leisure time activity both adjacent to our homes and within easy reach of our residences. With increased income and the broader horizons it allows, a greater portion of the people will demand more variety in the cultural facilities; art, movies, theatre in the round, art galleries and all the other manifestations of cultural activities, which are largely limited to the wealthy in many cases today. These will have to become more prevalent. With the work week steadily declining, with more income for the pursuit of recreation, facilities immediately adjacent to the house, such as swimming pools, golf courses, recreation centers for the elderly are being demanded and seem to me vital to the future city. Both recreation and different kinds of dwellings will necessitate a greater variety in the types of environments which we provide. The days of the single type sub-divisions seem to me long past. Those who love horses will buy in a horse sub-division; those who love tennis will buy in a tennis club sub-division; golf and of course many pool sub-divisions are becoming very common. Even in the northern areas, we have to think in terms of cities which have this type of variety readily available.

We are being plagued because we can't satisfy the demand by hundreds of people who want us to some how or other do a much better job than the city has done in the past in developing hiking trails and horse riding trails throughout the city. We have a new horse sub-division in which every house will have its own private stable behind and then have a central stable. We are just beginning to get a kind of variety in our city.

Education is in every expanding horizon for all of us. The new American city will have an educational plant that will serve at a far more satisfactory level than in the past. Our education will be handled by two methods, one, the centralization of cultural and educational facilities into a complex of buildings serving all age groups which will help break down some of the segregated patterns which have been prevelant in the older portions of our cities. Two, the development of electronic means of communication which enable people to participate in educational

programs in their homes obviously handled out of some type of centralized facility. Each neighborhood educational facility will have instantaneous access to the entire library system of the city through electronic media. The increased demand for keeping up with the technological changes which are ever increasing at an accelerated pace will demand that all people continually update themselves. This suggests a far-reaching expansion of the role of our public educational system, the beginnings of which can be seen in the tremendous expansion particularly in California in the extension programs of universities and high schools. This suggests to me a tremendous expansion in this type of facility, greater variety, increased costs in providing this type of services and certainly a far greater expansion in the types of educational facilities which we have near where we want to live. The extension of equal opportunity to all and the massive federal and local programs to eliminate poverty, reduce segregation and raise opportunity levels for all Americans will vitally affect educational plants in the older portions of our city. Nursery schools, it seems to me, will have to be distributed throughout the city so that the child will feel more at home. These in turn will feed into a kindergarten system on into the elementary school, which will be a part of this larger complex. The aging population will create vast new demands for facilities; expanded federal insurance programs will certainly magnify the need for hospital facilities. The specialization which is going on in the medical field will mean far greater specialization in types of clinics which we will need. The greater awareness of new medical fields and the need for recuperative facilities that are located between hospitals and home environments suggest the need for far more so-called halfway houses. These are not full hospital facilites, but provide convalescent care for many types of illnesses which can be handled in a more homey atmosphere and do not require the same kind of overhead as the hospital itself. The increased longevity of the population will vastly increase the need for nursing homes and homes for the elderly. An entire community (which I think is somewhat sad) that specializes in the needs of the elderly themselves. Much of the work that I have done with the elderly indicates that they really want to be in an intensive active area in which there is a variety of age groups, but the Leisure World people tell me this is not true. At the same time specialized clinics will have to be closer to these centers where we can develop homes for the elderly close to a shopping center where activities can take place, but where they will have other facilities available.

The revolutionary changes in productive activities and working conditions will accelerate in the future. Businesses will still have to be carried on in concentrated areas of activity, but the trend is for recreational facilities to be attached to commercial facilities. Shorter work days will become even more evident in the future. Industrial and research complexes will increasingly move toward those areas of higher learning. Since this relationship to educational facilities and the resources of the university can be tapped and the free interaction of scientists and technicians in the university with the business world is extremely important. Religion and its impact on life unquestionably is an increasingly important concern. Religion must be a more vital part of

everyday life. There is more and more emphasis in the way we live and how we live. Religious and human relationships must be extended into the area of leisure time. All this suggests that in this educational, cultural field that religion be an integral part of this complex. The true community focused in the church that existed at one time in this country can be re-emphasized and preserved.

It seems to me that as part of this complex, it is self-evident that Americans are becoming more and more disenchanted with the centralization of political participation in a major central city. As our cities grow larger, the ability of the politicians in a city of one to ten million becomes more difficult. A definite trend is the significance of the proliferation of public services of all types. Therefore it would appear very necessary in our future American Cities to decentralize and that the community decentralize governmental facilities. Where one geographical location near one's home or business nearly all the relationships with government could be taken care of and where a sense of responsiveness to local community needs could be encouraged. It will be possible for the citizen to go to these local community centers or public city halls where all the various kinds of facilities are available and used by the community. A central record and data system would still be needed to serve the citizen. Direct communication by electronic and visual means will substantially eliminate the necessity to have the type of centralized government we now have. Such technological communication innovations would allow a far greater degree of differentiation of various segments of urban areas. Increased demands for certain types of public services such as health, education and welfare will be able to be met in a centralized fashion through this "instant communication". This will create demand for decentralized government facilities of a substantially greater nature over what we have today. The way we live obviously will be shaped by the technology supplied to us and available to us for general use. The innovations in transportation, in marketing, in material handling, product development, will all vitally affect Los Angeles. These tools which will provide the life that we want to live will offer these types of services and facilities not presently imagined by many of us. Let me give you just an idea. This is something that has fascinated me. It is the technology of the home. How backward in many ways it is. This technology, I hope will catch up with the construction industry.

Now I am convinced that out of technology will come some kinds of small atomic power packaged to be available either for a cluster of houses or whole cities or for the individual house. Your heating systems will utilize the heat pump principle which gains its warmth or cooling from either the ground or the air. Then you will have a water system which can be used -- you will reuse the water supply with only very small additions. Since the house can easily be transported, can be placed on its foundation and be re-assembled rapidly you will not need to be hooked up to a water or sewer system. You will get power from the air or ground and you can be supplied electricity from some kind of packaged atomic power reacter. It can therefore, be <u>completely</u> <u>disassociated</u> from a traditional urban facility.

Then there is the possibility of the use, for example, of the air-car, or ground affects machine. It pushes air down towards the ground and the machine raises up. It can go easily on ground or roads or water and you don't have to pave any roads. As a matter of fact it runs much better when it is on grass because it doesn't blow any dirt out from under its skirts. So if you put these things together you have an air machine that needs no paved road and a house that needs no utilities. You begin to see the impact of the suburbia of the future. If we are going to grow by the 100 or 200 million people, and 99% of them are going to move to the cities and people will have this kind of flexibility, you can imagine the kind of creative immagination that we need.

Well, what kind of community are we going to create when we don't need the normal kind of public facilities and connections that we normally thought of in an American city. Not only do we have this kind of impact but, the motor vehicle in the 1965 form will be a thing of the past. Somehow or other we have to develop a fuel cell which need only be replaced occasionally, or if ever, during the life of a car or will have some kind of propellant other than the normal kind we now have. It may be batteries, though they tell me batteries weigh too much to make a car go 100 miles an hour, but I am sure somehow or other, we have to sell them this problem. In some cities, all the vehicles will be owned by the public so that fewer vehicles will be needed to supply transportation needs. We can theoretically develop this completely because we know what is possible. People will rent vehicles for their travels as more and more people are now doing. They fly to where they want to go and then rent a car. With supersonic travel between centers of population it may not make any sense to drive any longer, as one can be in Europe as quickly as he can in the next community. Leasing a vehicle for every-day use may be a customary procedure. The more affluent homes will be supplied with centralized educational electronic facilities which can bring to your home the educational resources of the community as a whole. The leisure activities of the community will take place throughout the world because of the vast increase in space travel and supersonic travel.

The necessity to make a decent living and solve the air polution problem, we will have to resolve the problems that come from power production and from different kinds of industrial development that cause air polution problems. Due to increased population and extreme water reserve, it seems to me that an alternative to the utilization of our water (as we do now) has to be solved. I think the desalting of sea water at an economic level for domestic use will open up fantastic horizons of new communities and interest in what are now inaccessable or of unheard places. It might, as it was suggested this morning, begin to bring water back into areas of desert within the city that provide the kind of recreation people desire.

The demand for the type of living which we want will be significantly affected by the types of technological changes which have been described

to you. Changes of income, the changing of the nature of social organizations, through the increase of the ability of people to move and hopefully the desegregation of the ghettos. I think this aspect with the percentage of Negroes and lower income poeple constituting 60, 70. or 80 percent of the total population in a number of cities. Inexpensive housing in mass markets is absolutely vital.

Los Angeles suggests whole new horizons of technological and environmental opportunity never before realized ranging to the extremely high density housing areas with multiple level recreation and shopping and educational and cultural facilities attached. The housing of a different type, so inter-connected with other forces of the metropolitan area by new forms of communication, hopefully will reduce some of the demands of transportation and at the same time necessitate a different form of transportation. The demand for more economical use will spur the multiple use of facilities and the multiple use of open spaces and facilities on top of existing developments. Someone has suggested that instead of building our playgrounds next to our schools, to build the schools next to the shopping centers and put the playgrounds on top of the roofs! We haven't begun to grasp the imaginative use of time and of space.

As I see it, planning is a scientific effort to analyze the task and evaluate the present so solutions and programs can be seen for the future, both immediate and long range. It is an advisory agency, the final decisions and the policies rest with the local government. I think this is most important to recognize. It is a coordinating agency. Most of our time is spent getting two people across the same table talking about a common problem. Trying to find a common solution or alternative solutions and persuading them to follow them. Obviously we try to be objective in solving these problems. Now one of the fascinations about planning is to try and look in the future. I regret that I wasn't able to attend your first session, because one of the greatest dilemmas which a city planner faces is that he isn't really capable of doing the kind of job he really should because generally he doesn't have the training. It is men like your first speaker this morning that must pose the outreach and begin to chart where we are going in the long run, and how we get from where we are today to that eventual goal of the city planner.

In any case in planning comprehensively for a city like Los Angeles, you must first understand the people and the politics. You must understand the economics of what makes it tick. Let me give you an example. One of the things that disturbed me in our Goals campaign is how do you get your constituency involved, your church group, your social concerns commission, to grapple with these broad questions? It has been my observation in the church that the "social concerns" committee is generally pretty high on theology and they do not come to grips with a problem in their own immediate area.

If we had a plan for the city of Los Angeles what are the alternative physical patterns that might develop? Do we want a Wilshire Boulevard every four miles and then run a subway down underneath the boulevard, or do we want a series of high density cloisters at various points? How do we use the mountains creatively? How do we take advantage of climatic differences? What kind of improvement in terms of vertical dimension, as well as horizontal, do we want in terms of the future city (taking into account the types of human ideas and needs which I have tried to indicate)? These are some of the alternatives which lie ahead in Los Angeles.

One of the areas which I am extremely interested in is how do you involve citizens in this process? I think the first thing that needs to be done is to promote 'citizen identification' with the type of problems we face. Most citizens recognize that we have a terrible smog problem. They will certainly understand this. Most of them will complain about the automobile, but approve of continuing to be able to drive in their own automobile, and not really want to change. They recognize the need for improving our social condition, but they are not willing to take the steps to encourage a Negro to live next to them. So that the social and human attitudes and dimensions of the total problem of rebuilding and making a city that we want are, by far, it seems to me, the most difficult. Then you get into the problem of minority housing and blight. How do you stop this? One of the things we are suggesting at the request of the mayor is, for example, a community analysis program to analyze in-depth the total problems of blight. What are all the necessary organizational and economic steps necessary to eliminate blight. I used to be a naive physical planner. I use to think if you fix up the house and you give him a new school and a nice park that runs by the school and plant trees on the street, that he is going to be happy and you have eliminated blight. I long ago learned that the social and economic problems have to be solved first. I am not saying anything against a nice physical set-up because I would hope that we could create both. A beautiful physical community is the least important in terms of eliminating most of the problems of the community. So to get at this, we have developed a Major Goals Program. (We also find that this is in context with the national goals program President Eisenhower developed several years ago.) We hope to involve every facet of the community in the determination of just where we should go. What kind of an urban civilization do we want in this area? We have asked the churches to take part. We will be asking the Health and Welfare Associations and Civil Rights groups and the League of Women Voters and those concerned with human and social problems. At the same time we will be asking the aerospace industry, the construction industry and many other groups. What kind of urban civilization from their point of view, do we want? How can we in our particular interests fit into this? Then somehow or other we have to come together in a forum. Do this by using television perhaps. I have a couple of television companies that have agreed to help. We need to come together in a forum of public discussion. Through this means we begin to get a feedback to the government as to what kind of city the citizens of this city really want. Without understanding and support on the part of citizens, we really will never to able to achieve the kind of city we want.

Your chairman asked me this question. Can we really remake Los Angeles? I think we can. The first question is, how? First of all we have to build on the strength which we find here and this is fantistic. I am amazed. There are 20 symphony orchestras in the city. There are more art galleries (practically twice as many as you have in San Francisco). There is tremendous cultural development in this city. We are in the midst of the richest recreational resources that I know of in almost any city in the world. We have to build on our strength. But at the same time we have to realize our weaknesses and seek solutions through the utilization of every bit of technology and knowledge available to modern man.

Then, it seems to me, that we must commit ourselves to working together to carry out these solutions within the democratic context of our American democracy. Many people have said that planning is undemocratic. I don't feel this way at all. The final decision on everthing that I suggest, or that the planning commission does, rests with the elected officials. This is as it should be. If you don't like what your elected official does, get rid of him in the next election and get somebody that will do a better job. It seems to me, therefore (and this is the core), that we re-make our cities by committing ourselves to support, strengthen and reshape those institutions that must carry the major burden of carrying out our wishes as to what kind of city we do want. Then I think we must commit ourselves to fighting apathy, the antagonistic and disruptive elements within our community. Yet this must be done within the fundamental freedoms of this country.

The second question is who will remake Los Angeles? It seems to me it is all of us individually and collectively. I suppose this is just obvious. But it is also obvious that we must take an ever increasing part in political affairs so our elected officials are truly responsible agents for progress and have the courage and breadth of understanding to help make the government as an <u>instrument of new horizons</u>. I have had opportunity to work with many political leaders in a number of cities. They are not as bad as they are painted, for they have enormous problems to resolve. They are often victims of our own apathy and by the system by which they are elected. But the net result is that many of them are woefully lacking. This is our fault and really not theirs, for we don't create the system that will necessarily produce men of vision and courage.

One of the greatest problems in government is coordination. In the City of Los Angeles one of the principle problems that I find in trying to get new development policies through is the fact that one agency has complete control over sanitation, and one over street engineering and one over something else and they never seem to get together. So this is one of the great dilemmas. How to get a community of understanding on problems within government itself. Then you have the responsibility of other agencies, such as transportation, the metropolitan water board and the air polution control agency. How do you make sense out of all of these when what you really need is a <u>total</u> view of the city you want.

Then you add on top of these your state and federal agencies. (President Johnson recently knocked some heads together as a result of the President Conference on Natural Beauty. One agency was getting 50% help for open space and another was getting 30% help for an entirely different program but absolutely related and the two were competing through the same market.) So this shows the difficulties in coordinating a political decision. You have so many different agencies. You have the city council and the board of supervisors, the mayor and the governor. You have many private and semi-public groups and agencies which have tremendous impact on the city. Your health and welfare and recreation agencies, your civil rights groups, your associations, trade groups and your business and social groups, your rotary clubs and your chambers of commerce, your property owner groups. And I think unquestionably (and this is close to my own feelings) that the churches must become much more actively involved in the delineation of what is needed in a city from their point of view, and then do everything possible to achieve it.

And then you have just plain individuals. Just think what Mrs. Knudsen has done for this city, or Mrs. Norman Chandler. They are individuals and think what they have done!

I went to a men's garden club meeting the other day with a prominent attorney. He says they do not have any officers, elections, resolutions or anything. They say, "Well now this person down here who is building a new factory is doing a bad job of it. Joe, you know the man who is president. Call him up and tell him to do a better job". Well, Monday morning they are doing a better job! I cannot overemphasize that this is the way things are often handled the most effective way.

Another example took place when we were trying to develop a new stadium in Pittsburgh. A good part of it was on the B & O railroad track, and we just couldn't get the railroad to come to grips with a price for their land. They were a most elusive group of people, and it was holding up everything. And so we finally turned to one of the key men in the city and he had a private dinner for many of his friends. (Rather surprisingly only companies that moved about 80% of all the freight in the B & O Railroad were invited.) It was rather interesting. He invited these other men first, and they were there about an hour before the cocktail hour at the dinner. Then the president of B & O Railroad came in and he saw about 80% of all of his business sitting there around the table. In about a half hour they managed to get an agreement on moving the B & O Railroad tracks! So I say individuals can have tremendous impact on changing cities.

Where do we <u>want</u> to go in the future? First is the formulation of goals and objectives and then the identification of the principle problems and issues that we face today and in the future. And it is obvious that they are air pollution, lack of adequate transportation and the gobbling up of our open spaces.

P A N E L

LOS ANGELES TOMORROW

by

Calvin S. Hamilton

Question: When urban renewal projects are undertaken, what happens to the displaced people? Where do they live until the projects for housing are finished?

Mr. Hamilton: If it is a federal aided project, the federal government requires that there be an adequate relocation program which minimizes hardship cases. The governments redevelopment relocation plan includes a specific provision that every one relocated shall be in a house that is so-called safe and sanitary. The standards according to city zoning ordinances vary. In a study done of the Pittsburg projects showed 92% of all the families moved into better housing than they had before they were relocated. The real problem, however, is the social dimensions of up-rooting families who have lived in a neighborhood. This is the area that gets the strongest resistance.

Community analysis program is fundamental because its primary goal is to find alternative means for enforced relocation, or renewal. In most cities you could avoid enforced relocation if there was an adequate job done before you ever have the need of urban renewal. The central objective is to prevent areas from declining so badly that it is necessary to clear and rebuild. The objective of the Hoover project in Los Angeles, for example, is trying to encourage as much owner participation as possible. Owner participation is going to minimize the need to tear down homes. However, it becomes quite certain it will be necessary for some people to be up-rooted when the substandard housing exists generally. In a number of cities the people have had ample opportunity to find other housing on their own. Long range planning can open up other areas in communities that are overbuilt for relocation, thus reducing segregation and the blight of ghettos. Unfortunately I doubt if this will happen soon. I think if the 1965 Housing Act can be realized and the money be appropriated it will help greatly in realizing the goal.

I would like to have a program of relocating Negroes in public housing, for example there are 25,000 vacant apartments in the San Fernando Valley. Through the Rent Supplement Program these apartments could be used to relocate people. Regretfully, the Rent Supplement Program was defeated, but I hope eventually it will come up again for a vote. Another possibility would be if the public was to give the housing agency the authority to acquire run-down or delapidated houses then they could spend money to rehabilitate the house and use that as a public unit for three years and if the family earns enougn money they could be potential buyers. This could be an important means for disbursing the ghetto.

Question: How does one achieve true renewal-urban development or what is the dynamics of a stable healthy community life?

Mr. Hamilton: There are a number of programs in the country where this has been tried and to a degree an understanding achieved. I don't know of any here in Los Angeles other than some church groups. The Action Housing group in Pittsburgh was active in this. The ABC Program in Boston has tried to do this, the New Haven Project has attempted to do this. I think there are areas around Chicago, the University of Chicago, where there has been a major program of environmental studies. It has many facets to it. It is obviously the first part of the area in which people move, the tremendous psychological problem of having different kinds of people move in. There is the problem of the people themselves who move in and their acceptance into the neighborhood. Now this happens every day to some extent through natural movements, but there seems to be a psychological problem when it happens through some kind of governmental action. One of the most successful programs that I know of is in one of the neighborhoods in Pittsburgh where there has been full time organization for about seven years now in which each newcomer is welcomed and oriented into the community. The newcomers meets the block club, the block club introduces him to his neighbors. There is an effort to relate him immediately to types of community facilities and services which he needs. In other words, there is a secular approach to all of the facilities of the community. To my mind this is the most essential thing, particularly for those who do not have the financial resources to broaden their scope.

For example, one woman teaches Junior High School kids from Los Angeles who have never been on a freeway or have never seen the ocean and they have lived all of their lives in Los Angeles.

Question: Mr. Hamilton, as I have listened to you outline some of the plans for the future it seemed to me that the dollar mark was getting bigger and bigger. I was wondering when you thought we might reach the saturation point and what kind of financial limits are placed on plans for the future?

Mr. Hamilton: Well, I think the mayor and the council and all city planners are very deeply concerned about this. You asked the question regarding our total resources and how we allocate these for solving our problems? I am not sure that I am prepared to reach a conclusion at this point as to how much we can afford in terms of our total allocation of public resources or how much we should spend on these various programs. I am convinced, however, that a good deal of what is done can be done through using the resources we allocate today more efficiently. A good deal of this can be created by the natural factors of private enterprise and its energy which it develops in itself because I would guess that Los Angeles has more redevelopment than any other city in the country. This is something I am struggling

with. It may have more redevelopment than all the other cities in the country put together. There is no reason why this redevelopment can not be used as a creative tool to accomplish the kind of results we want and a good deal of what happens badly is not because people are not willing to do it in a different way, but they do not know any better.

There is no question but that it is going to take a lot of tax dollars to develop effective housing, rapid transit systems, and other public benefits. It is going to take a lot of money to eliminate smog. Pittsburgh, for example, spent about $380,000,000 on smog control. All of this was in the private arena. Over half of it was done completely voluntarily and yet they figured that because of the by-products of not having all the dust and smoke coming out of the smoke stacks, they have more than made up this with other advantages, even though it takes $60,000,000 to operate smog control during the year. If you begin to look at the allocation of resources in total, I am convinced that we are not talking about more tax dollars. We have to look at it from a total point of view and not just in separate segments in what the state does, what the federal government does and what your local city and county does in each separate budget. It has to be looked at in total.

Question: What relationship of ideas and research, etc., is there between your department and the San Fernando Valley State College Urban Study Center and its forthcoming year book?

Mr. Hamilton: I am not sure. My executive officer has been meeting with a study group in the San Fernando Valley. The head of the geography department is very interested and has been the leader in this urban study center. I have encouraged Mr. Lombardy, my executive officer, to work as closely as possible. I have been talking with the President of San Fernando Valley State College, encouraging him to participate in our goals program and I have also met with Chancellor Murphy of UCLA and Dr. Topping of USC on the same program. What I hope to do is to involve leaders of the city in our urban studies program. We are contemplating developing a joint program in which money would be brought to government and funded back to them by primarily concentrating on the San Fernando Valley and making them a focus of intellectual relationship in the San Fernando Valley.

Question: Could you comment further on the relationship of the suburban community and church to the inner-city? How do we get more involved in this whole thing in terms of actually creating a program for the need in this area? I would like to see this spelled out a little more. A lot of us are seeking help in relating the suburban to the inner-city.

Mr. Hamilton: I don't know of any tougher area. There have been a number of experiments. I think my personal feeling is that through the ecumenical movement there first has to come an aware-

ness on the part of those within each suburban congregation of what the problems are in other parts of the city. Chicago has home to home visiting programs that are quite successful. The suburban families come in and meet with Negroes in the inner-city and the Negroes go out and look at the suburban homes. This has helped. But the fundamental question is how can a suburban congregation of people really participate in a program of helping and inner-city church.

My wife and I and our four children visited the West Adams Presbyterian Church last Sunday and it was quite apparent that we stood out like sore thumbs when we sat down with the congregation, and yet Bill Hervey of the Los Angeles Presbytery is anxious for other familes to participate in this church in an experimental way. My sons are very interested. How do you interest other people in leadership roles to help get other people? What kind of role should you play? This is a fundamental question. It seems to me there are three levels that should occur. One, is a fundamental awareness on the level of the individual suburban congregation and whatever committee is concerned with social goals. Secondly, to tackle their own problems in their own community with their fellow church groups. This is something we hope to do through our goals program. These groups should connect themselves with groups such as the Chamber of Commerce and the local neighborhood associations. When they have gone this far they inevitably are going to see that their problems are related to the city as a whole because you have to interest people on the level where they are.

They are interested in their own property values, their own schools, their own storm drainage, their own paved streets or lack of them, etc. Then the next step is to gain an understanding of their basic needs and problems and to see their relation to the central city. Then a serious effort be made to relate them to an inner-city church with a two-year active participation in which they would offer leadership. Now this is one direct way. Another direct way to participate as Christians in leadership roles in those organizations that have direct relationship to inner-city or deprived neighborhoods is through finances. If you look at the West Adams Church, the first thing they need to do is to have more staff to help the present minister in a recreational program which will draw all ages into active participation. There is great need for leadership in a variety of religious and essential programs. A minister cannot do it alone, he needs help. In some cities they have a sister church share part of the suburban church's funds, and to my mind this is even more important than overseas missionary work. Another way is to share a fourth, a third, or half of the total budget with an inner-city church. This may mean that the growing suburban church puts off building their sanctuary for ten years, but it is much more important to my mind to help in the downtown areas where there is a genuine need.

Question: I am wondering at this point if there is another approach. What about having people free to do the work of the church in the community rather than think of carrying on a program within the church only?

Mr. Hamilton: That's what my sons asked me when I came home from church Sunday. Well, I guess I can only say that I think both must happen. I find I need the spiritual nourishment of the church and the environment of a fellowship within a church is absolutely vital. On the other hand it seems to me that churches can be a tremendous value in relating themselves to the kinds of problems in their community so they are reaching out beyond themselves. If they demonstrate how they can be a vehicle for helping their community they will naturally attract other people. From my observation most teenagers couldn't care less about Sunday school as they are normally run and yet my sons spend all summer with American Friends Service Committee in Southeast Los Angeles with fourteen other teenagers from all over the country giving their full time. I have another son who gives his full time to the civil rights movement. Why? Because they are committed to civil rights and yet I can't get them to go to Sunday school, but if that Sunday school in West Adams will begin to really help the community, then I'll go and encourage my sons to go, but only then.

Question: You have been talking about 'community'. There is a desperate need for a sense of 'community', but how do we develop community in the heart of Los Angeles, particularly in the deprived areas?

Mr. Hamilton: If you live in Tarzana or Encino and you see the mountains being gobbled up behind you, you have 'community' because you have all gathered together to fight those darn sub-dividers in the city planning department. If you live in some apartment complexes, your community is your neighbors around the Sunday pool. If you live in the outer fringes of suburban areas, your community is the common problem of overcrowded schools, or the county taking care of the storm drains, etc. Hollywood is a very good example of one of the toughest areas. What are the problems that bother people in Hollywood? They are not going to be common. They are segmented kinds of problems. The only way you can get a community to participate is to find a common thread or problem in which they are all concerned about. One example might be "safety". Safety for kids or safety for themselves from purse snatchers, and so forth. A common problem in older sections sometimes arises out of persuading the women, that collectively they have to do something to persuade the police to protect them when they walk along the streets. Then from that you can move to broader perspectives and understanding, but you have to start with something that each, either as a small or large group is a push into participation on a community level.

Now, what can the church do? The church can help set the pace and the framework for this kind of participation. It has been my observation that the church seems to disassociate itself so often from the parish problems which the members feel when they function as members of a civic community. When they move into the church they seem to forget

the relationship between the two. Now this is not true in civil rights. I mean if you were talking to my son about Bogalusa, he would say, "The churches are a community in Bogalusa and they are all over Louisiana." We need to translate this kind of active participation of the problems that the people they are serving feel, so the two are related and the church becomes a vehicle for them to some of these problems, thereby, identifying the church with the kinds of problems that they face today.

Question: In your address you spoke of the various means of transportation and the mobility of the majority of the people of the city. Was or is there a reason why our planners, and this may have been prior to your emergence on the scene, failed to include rapid transit of some kind along with our freeway system?

Mr. Hamilton: I asked this same question a week ago before the planning commission. A rapid transit system was proposed down the middle of the Hollywood and Santa Monica Freeways. The state highway department actually held up building both freeways for a period of time until the local community could somehow or other find the money to buy the right of way because the state and federal law forbids the state highway department from buying and maintaining land and then giving it to a rapid transit facility. The state highway commission and the governor's office agreed they would allow some other local public agency to buy this land at the cost it cost them. The city couldn't agree on the necessity for rapid transit. The county couldn't agree, without the extra money coming to the rapid transit district, since they didn't have the money to do it and so nothing was done. I asked the same question again the other day and the same situation holds. The city will not do it, the county will not do it and the state cannot do it and so there is no rapid transit on the freeways. I think we have got to change this somehow, but this is a good example of what I meant by allocation of total resources. The irrationality of governmental organization and the inability to coordinate the allocation of resources is one of our major problems we face today.

Question: You come to us and speak as a city planner with a vision and experience. You also come into our midst as one who confesses an identity with the church. What kind of urban civilization do you want?

Mr. Hamilton: I honestly don't know. I think I want something that is going to have the beauties of the physical environments of the Irvine area. I know that I want a civilization in which we do not have ghettos, in which every man has the true opportunity to be free in relationship to others. I am convinced that somehow or other we can use our resources more effectively. I think we will always have some unemployment, however, I am convinced that we can use energies and technologies for making every man's

life infinitely better than it has been in the past. Somehow or other we must reshape our political mechanisms so they respond to the needs in the dynamic way in which economy and growth occurs, and yet not in any sense jeopardize the fundamental freedoms which we have in this country.

If we take advantage of every bit of technology that we have and we strengthen our democratic process, but make it vulnerable to create a kind of urban environment that is responsive to people of all levels, we can develop a city which has the idealism of the Irvine area, and at the same time allow every man to mix freely in urban society so our children are not allocated to an economic ghetto, a religious ghetto, or a racial ghetto.

THEOPROBE FOR SYMPOSIUM II

by

Reverend Thomas W. Gillespie, Pastor
First Presbyterian Church of Garden Grove, California

I would like to begin the few remarks I have this afternoon by drawing, what I consider to be, a necessary distinction in our use of the word theology. We must refer, on the one hand, to the content of theology. This is the constant factor, and, as Christians, I think we would say that the content of theology is the one word of God. On the other hand, we can distinguish from a theological point of view the form of theology and this is the changing factor. This, it seems to me, is the setting in which all theology takes place so that the one word of God comes to expression and the application differently at different times and in different places, so that theology is determined materially by the word and formally by the world. Let me give you an example. It seems to be that the point of contact, that we have had as pastors of churches with the scientists and planners that we have been listening to these past two Mondays, is man himself. We all have a concern for man. Man has been called a multi-dimensional being, and we all have been looking at man from the perspective of our own particular dimension. Now in general anthropology, man is always used in relationship to his environment of his similarities and differences with his natural environment which was the subject matter of our first symposium; and in terms of his comparisons, similarities and differences with his cultural environment which is the point, as I understand it, of our symposium today.

From the point of view of general anthropology, man is always viewed and understood and even explained in terms of his relationship to his environment. Now from a theological point of view this is woefully inadquate. Theological anthropology sees man always in relationship either rightly or wrongly to his God. This, by the way, is reflected very subtly in our Confession of 1967 in that anthropology in the section on the sin of man comes immediately following the section on Christology on Jesus Christ. It seems to me that this is a way of saying in the Confession that Jesus Christ is the true humanity, therefore, if you want to know what man really is, you don't look at him in terms of his environment but you look at him in terms of Jesus Christ who is, as Paul put it, the new Adam; and thus man is to be understood if he is to be understood rightly in terms of his relationship to God. Now, having said that, one does not mean to imply that this man, who is to be understood in terms of his relationship to God, is not a man who is also at the same time in a relationship to his natural and cultural environment. He is.

I just finished reading a delightful little book by Helmut Thielicke entitled appropriately, "What's Wrong With the Church", in which I think he actually says what is wrong with the church, and that is the church's preaching. He said people aren't tired of preaching,

they are just tired of our preaching and the reason for this is that we preach to the man who really doesn't exist. We preach to man in general but never to the man in particular. We say one man is to love his brother but we never spell out in terms of the one man being an apartment house owner and the other man being a renter, for example. So that when I say that man is to be understood in terms of his relationship to God this is not to deny that this man who can only be adequately understood in terms of that relationshp is a man who is not at the same time in relationship to his naturally cultural world. He is. But the conclusion I would draw from this is that what we have heard, and I mean this to be provocative not definitive, thus far does not upset theology materially unless you want to go down the road with Gibson Winter, whose sociology, I cannot judge but whose theology is woefully lacking. Gibson Winter wants to identify what God is doing in the world with what man is doing in the world. If you want to read an excellent critical analysis or critical review of Gibson Winter's new book, "Metropolis of the New Creation", you will find it in the October issue of Interpretation, an article by Marcus Barth. What we have heard thus far, it seems to me, does affect theology formally. It does not in any way change what the word of God is to man. But it does affect the way in which this one word of God must come to expression, to interpretation, and to application in our time and place.

This is why, for example, there are great differences between the indigenous kind of theology that goes on in Japan and India and the kind of theology that goes on in our western culture. So that the world that we have heard so overwhelmingly described, both last week and this, is the context of meaning in which we live and the world is something infinitely more than just a geographical location. A man's world, his whole framework of reference, his whole way of understanding himself and others and his natural environment, includes all of his prejudices, his values, and this is the world that has been described to us.

It seems to me that we as pastors and preachers of the Word must listen very carefully to what has been said to us in order that what we say will be an adequate expression of the one word of God for our time and place so that the world is shaped to the word. But on the other hand, the word must always be allowed to inform and thus reform the world. In other words, science is useful as a way of explaining and to some extent controlling, but theology is for the purpose of understanding. The one may explain how it works, but the other has to explain what it means. So we ask ourselves, as Christians then, not what is man up to in the world and how can we harness God to help him accomplish it, but rather what in the world is God doing and how can we be part of what God is doing in the world? Paul Lehmann, in his book "Ethics in a Christian Context", suggests that one can read the newspapers without being driven to read the Bible, but one can hardly read the Bible without being driven to read the newspapers and he quotes Karl Barth in his preface to his Epistles to the Romans back in 1919, "if one really wants to understand the Epistle to the Romans, he had better

saturate himself with the reading of secular literature, particularly newspapers." So that the day by day account of what is going on in the world can never be separated from the day by day account of what God is doing in the world and, of course, we as Christians put ourselves in the line, a presumptuous line of saying that we know what God is doing in the world. Will Rogers said that all he knew was what he read in the papers and I think Christians would have to say all we know about what God is doing in the world is what we read in the Bible and in the papers. What Christians must say that God is doing in the world is in Paul's words, "seeking to bring all human life to that maturity which is found in Jesus Christ in the fulness of the stature of Christ." If that is what God is doing in the world,then it seems to me, we can accept Paul Lehmann's definition of God's activity as God's desire and activity by which he seeks to make and to keep human life truly human. Now if that is what God is doing in the world, then it seems to me that we, as Christians, have a point of reference by which we can begin to answer the questions that I have heard the scientists and the planners saying to us these last two Mondays and it is always the ethical question.

It has been said to us again and again, that science is the tool of mankind, planning is the tool of mankind, but mankind is a problem. What will he do with the tools? So that we at the church do not have the right to simply baptize all human activity and to identify with the activity of God, but we do have a frame of reference; we do have a word which reveals to us the nature of God's revealing activity of the world whereby he seeks to make and to keep human life truly human. We can enter into dialogue with science and social science in terms of the ethical implications of what is in fact going on in the world. The world then is shaped to our word, but our word must inform and thus reform the world.

THEOPROBE FOR SYMPOSIUM I

by

The Reverend Kenneth Reeves, Pastor
St. Peters by the Sea, Portuguese Bend, California

Well, Mr. Peterson gave us quite a speech. Mr. Peterson raised many, many questions in the context that Mr.Gillespie has raised for us about the world and the form the theological message takes and is given in the world.

I am wondering if he raised for us -- I think he did -- a concept about planning, not so much for theology, but toward the church itself, in suggesting to us that we cannot move forward, probably in the decades ahead, without a clear concept of planning. We cannot even build church structures without coming before a planning commission in a county or city. This certainly says something to us about the mission of the church, and about a theology for mission, and a plan for mission.

There has been something said about simulation. This suggests something to us about trying some things in order that some other things might be done much better. We have some experience to go by and we who pray to God and feel close to God and preach God's Word (we hope with effectiveness), do not always respect God's laws, way, order, theology in church programs and missions. I think we might take this to heart. So there is needed a theology and a practice of mission. Mr. Peterson engaged in some vigorous critiques. I thought it was quite amazing for a man to quit the military last week and then come and give this forthright criticism of the military today. It is very important and I think he encourages us to engage in a critique of the military, this merger of technology and the military to make a tyranny, a tyranny which he says already exists that is moving us more and more into total control of our society. Most of our discussion among us about militarism is pacificism and this is usually naive. It's either pacificism or not pacificism and the issue is much deeper and we had that brought home to us I think very, very well.

This matter of population explosion I will go over very lightly, I mean very quickly, not lightly, because this raises the primacy of the ethical question. In the theological sense we have before us a great study in Christian anthropology. We need not always listen to Margaret Mead. We should take the initiative in anthropology and we could do this by working not only out of theology (our new Confession gives us some very strong leads) but we are to work with the sociologist, with the economist, with the historian, with the political scientist and some of this can go on in theological seminaries, some of it might go on with the

laymen of our church near universities where it can be done. I think this is extremely important. It seems that possibly Mr. Peterson has never tried to understand man, give a view of man or we might do better, I don't know. I would like to point out here that from the standpoint of the Word there is a Psalm that tells us that man is but a little lower than God or the angeles, whatever translation you like. Man, but a little lower than God, which means that not only is he a breathing animal, but he is a highly imaginative person who creates. That is what I think the Psalm tries to tell us. It's what I think the men tried to tell us today (especially Mr. Peterson). This has something to say to us about our anthropology, our Christian anthropological point of view and about our message. I, for one, feel that more of our sermons ought to struggle with this field of anthropology. It's a broad term to say how it is to preach to people. We are very, very much engaged. I leave you with a theological problem, because I have been thinking about it ever since last week and this whole thing of justification by faith involves much of our message in this. We talk about the joy of being saved and the wonder of being saved, the beauty of being saved. We talk about faith and grace, and joy and gladness and forgiveness. Somehow or other this might be life in a vacuum, that it might be in terms of the effect of it. We delivered this Christian Man into a vacuum where he is to be simply joyful and gladabout his having been saved, to enjoy his salvation and then we leave him with his problems.

Somehow I have been much impressed with the way these men have spoken about the joy of working with matter, with great problems, the enrichment of their lives in transforming a bit of chaos into a new creation. Man having been saved, having been justified, standing beside God with a kind of righteousness; somehow, we have forgotten all about the real life with which he lives.

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