4 May 1964

Mr Frederick B. Wood P.O.Box 85 Campbell, California

Dear Mr Wood:

Thank you very much for sending me your April Bulletin of the Bay Area Systems Group. I hope that you will keep me on your mailing list. You are to be congratulated on having Louis Fein as a speaker in May.

I wonder whether there is a written version of Mr Jack Andresen's address at your February meeting. I would very much like to read it.

One of the most hopeful changes in the recent past, has been, I think, the interest and concern of individuals and groups in many parts of the country. For years I have felt isolated — the "bearer of bad news" that everyone wants to kill with brickbats. It has always seemed incomprehensible to me. The news is superb — the only thing that is bad about computing machines and cybernation is the general realization that their invention has changed everything. Everything, except our thinking. For the first time in years, I feel that possibly our thinking will change in time, too. Before it is too late!

I am organizing a conference on The Cybercultural Revolution -- Cybernetics and Automation in New York from June 19 to 21. If any of your members are in the area at the time, they will be most welcome. I am enclosing a preliminary program and shall send you the final program as soon as it is available. I shall also send your New York Office a program.

You might be interested in the enclosed paper I presented at the Spring Joint Computer Conference on the subject you mention in your bulletin, as well as a pre-print of an article -- somewhat revised from one published in 1960.

These problems do indeed require a "systems" approach, if we are to find workable and satisfying solutions and use computing machines and cybernation for the benefit of mankind rather than for its destruction. We have become all too accustomed to look at fragments — as if they were entities with a life of their own, rather than parts of an intricate, interdependent and interrelated sybernetic system.

incerely,

Alice Mary Hilton

A. M. HILTON AND ASSOCIATES

AMH:ms Encl: Conf. Program

"Transition"
AFIPS speech

May 8, 1964

Alice Mary Hilton (Mrs. H. L. Hayward) 405 East 63rd Street New York, N.Y. 10021

Dear Miss Hilton:

Thank you for your letter of May 4th with its enclosures. I shall put you on our mailing list. I am enclosing a brochure on the Society for General Systems Research, and some current notices. I am sending a copy of this letter to Alfred Hassler of the FOR, Nyack, N.Y., who sent me a preprint of your May 1964 Fellowship article. I am replying to Mr. Hassler by copy of this letter.

Mr. Jack Andresen will be passing through New York City on June 21st on a vacation trip. I noted that the Production Control slot in your Congress of Scientists on Survival meeting for June 19-21, 1964 is blank. There is an expert in production control in IBM, Mr. Martin F. DeFranco, who is moving this week from Los Gatos, Calif., to Fishkill, N.Y., where he will be in the IBM Components Division. I don't know if he would be interested in your donference, but its a possibility which might be extrapolated from his local church activities.

I have a lot more to say which I hope to include in another letter in a day or two. In the meantime I am enclosing the following: "The Social Responsibility of Engineers and Scientists" 1959 WJCC. "Direction and Control of Technological Change," SEPR No. 20-E. "The Two Cultures and the Social Responsibility of Engineers," SEP No. 20-B

The last item was written for the <u>Proceedings of Institute of Radio Engineers</u> for the <u>Necember 1962 issue</u>, but was omitted after considerable discussion on the part of I.R.E. editorial board.

Sincerely yours,

Frederick B. Wood

enc: SGSR, rp13, #15

SEPR Nos. 20-B, 20-E, 27-A

P.O. Box 85 Campbell, Calif. 95008 May 13, 1964

Alice Mary Hilton 405 East 63rd Street New York, N.Y. 10021

Dear Miss Hilton:

It has been more than a day or two since I intended to continue the correspondence of My May 8th letter to you. I note particularly your statement "For years I have felt isolated -- the bearer of bad news! that everyone wants to kill with brickbats." Well I know how you feel, because I have been fighting issues which I think are important for the survival of human values.

I have been fighting family pressures and IBM management pressures aomed at stopping my studies of the sociological impact of Cybernetics. One psychiatrist told me "In IBM you must conform." Another psychiatrist told me that my writing these Socio-Engineering Problems Reports was a "highly neurotic activity."

After my 1959 WJCC paper on social responsibility was accepted, I was orderedbby IBM management to withdraw the paper, but the WJCC committee had already had the program printed, so suppression of the paper was not practical.

I have stack with IBM, because I believe that the possible solutions to the social implications of computing systems are most likely to occur in the minds of engineers and scientists actively working in the computer field, particularly those who are designing logic and developing new classes of programs or supporting technology. I believe that some support for this viewpoint can be found in C. Q. Jung's psychological theories.

There is a public statement by Peter Elias of M.I.T. (quoted in SEP No. 5, pp. 1-2.) which indicates to me that many other engineers must have similar ideas and write papers on them and have them suppressed by the companies they work for or rejected by engineering society editors, etc. I have in my file a letter from Dr. Elias in which he refers to a manuscript of mine as "I still call it larceny."

Since the opportunities to publish material on the social consequences of my work were effectively denied to me by overlapping of separate forces in industry, the academic world, and in the engineering societies; I switched for a while to non-verbal communication such as marching in peace walks and assisting in C.O.R.E. demonstrations.

Since then I have developed a policy of separation roles shown in SEPR No. 20-D. It is expensive and generates more family problems to pay my own way to scientific society meetings on vacation or leaves of absence without pay, but it establishes a precedent for the right of engineers and scientists to speak out on important issues for the survival of human society without direct censorship.

I enclose some further notes of mine which I think will be of interest.

Sincerely yours,

P.O. Box 85 Campbell, Calif. 95008 Way 20, 1964

Alice Mary Hilton 405 East 63rd Street New York, N.Y. 10021

Dear Miss Hilton:

Since writing you on May 13th, I have studied your April 22nd SJCC paper in more detail. I keep finding more statements and views of yours with which I enthusiastically agree.

My own history of working on military radar projects and then on computer projects gives me a different background than most people concerned with the social implications of cybernetics and automation. In the fall of 1961 I conceived a plan for a book that could be written with about one man-year's research. I first issued the cutline of the proposed book under the pseudonym of 'Joaquin Murrieta,' a famous California bandit of the Gold Rush days. After developing my policy of separation of roles described in SEPR No. 20-8 & 20-D, I abandoned the use of the pseudonym.

I took a leave of absence from IBW without pay to develop the book outline in more detail (SEP No. 65-0 % 65-D). I am enclosing an abstract of the book outline which I presented to the I.E.E.E Cybernetics Committee a year ago in Detroit at the Spring Joint Computer Conference. Vardous crises an IBW computer projects have prevented me from making much progress on the book. (SEP No. 65-E)

However I have prepared two chapters as follows; SEPR No. 88-8, "Negentropy and the Concepts of Freedom, Democracy and Justice," 6/25/63-18/87/63, 41pp. (Presented at the A.A.A.S. Convention, Cleveland, 18/97/63) SEPP No. 91, "Four Philosophical 'Tools' For Improving Our Insights Regarding The Problems of Disarmament." 38pp., 11/18/63 (Not released publically). If you are interested in seeing copies of the above, please let me know.

I have more to say that may be of interest to you, but I presume that you are very busy preparing for the Scientists on Survival Meeting, June 19-21, so I will refrain from burdening you with futther detail at present.

Sincerely yours,

Frederick 8. Wood

enc: 65-E

May 25, 1964

Dr. Frederick B. Wood P. O. Box 85 Campbell, California 95008

Dear Dr. Wood:

I have received your interesting letters and material of May 3th, 13th and 20th. If I have not answered before, it is not indicative of any lack of interest but only that the pre-Conference pressure has combined with other commitments to keep me from doing much I would like to do. I wonder whether you are planning to come to the meeting of the Society of General Systems Research. If you do, I hope very much that we will have the opportunity to meet and talk.

I think that your separation of roles as shown in SEPR No. 20-D is very clear-cut. However, I am wondering whether it is really as simple as that. I have a vision of you rapidly changing hats and probably, more often than not, wearing all three simultaneously.

You say in your letter of May 13th that you believe that "the possible solutions to the social implications of computing systems are most likely to occur in the minds of engineers and scientists actively working in the computer field." I am inclined to agree with you in theory, that this is where such solutions ought to occur, since the most effective solutions to any problem ought to be devised by those who understand the problem best. However, I do not believe that our educational system has prepared engineers and scientists for anything more than being first-rate technicians. If there are a few who have the insight into social problems and the sense of responsibility to deal with them, they are the exception rather than the rule. Of course, I believe that solutions to problems are found only by those who are exceptional. And you are certainly an example. (Incidentally, my husband is wondering whether your home is in North Dakota. If so, he has either met you or you have a mutual friend, namely Dr. George Pendo.)

That this society is not inclined to support those who transcend the narrow and artificial boundaries of their specialty, you have certainly experienced.

I am very enthusiastic about the material you sent me and particularly the abstract of the book outline. It certainly looks as if you have a year's project lined up and I know from my own experience how very difficult it is to write a book in one's spare time. Do you have any publishing plans? I am

Dr. Frederick B. Mood May 25, 1964

working on a book at the moment which is to be the sequel to Logic, Computing Machines, and Automation. I see that we have many areas of common interest and that the reference material we use overlaps quite frequently. I would very much like to see the two chapters which you offer in your letter of May 20th. But please don't send them to me before June 21st, because I would probably be unable to resist the temptation of reading them.

I am enclosing another preliminary Conference program and will mail the final one as soon as it comes off the press. I would very much appreciate it if you could circulate the program in the General Systems Society and at I.B.M. If you would like me to send you a few more programs for distribution, I would be delighted to forward them. If you know of some people who ought to receive the program and would like to send me their names and addresses, I shall, again, be very pleased to send them programs. Do you think it would be feasible to use the mailing list of the Society for General Systems Research to distribute programs? If So, were the I for what if > the second was

I notice from the Statement of Purpose which you were kind (colery)? enough to send me that Ludwig von Bertalanffy is an officer of the Society. I am terribly impressed with his work and wanted very much to ask him to participate in our Conference. It is too late to ask him now but if you know where he is at this time (I understand he is at one of the Canadian universities), I would like to ask him next year.

Sincerely, Alice Mary Hilton

AMH/bd

Enclosures: Conference Program

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alice mary hilton

405 East 63rd Street New York, N.Y., 10021 TE 8-1466

THE AGE OF CYBERCULTURE: The Challenge of Leisure and Abundance

A Series

Planned and edited by Alice Mary Hilton

The revolution of this century, which a decade or two ago was a quiet little spring on a "blue-sky" mountain, has become a confluence of cataracts with enough power to elevate humanity beyond our most soaring dreams -- or drown the world. This generation must learn to navigate the turbulent streams of transition and, simultaneously, find a new purpose for our own lives and teach our children what we have never known: how to live in the leisure and abundance the age of cyberculture offers mankind. Past millenia of scarcity and strife, of danger and deprivation, of toil and struggle, will, for sometime to come, take their toll; it is hardly surprising that human beings find the challenge of leisure and abundance almost overwhelming and the tasks confronting them almost insurmountable.

Alfied Hassler The word "revolution" means a turning around, i.e., a com-Frauh Roseulat plete change, which can be orderly and beneficient like the revolution of the earth around its arise an include the revolution of the earth around its axis, or turbulent and chaotic like a hurricane. The cybercultural revolution is about to change the way man lives so profoundly, and its rate of progress - although it is not the same in every country - is everywhere so very fast that even the most farsighted and imaginative cannot envision more than a pale image. And even that is rarely credited with greater realism than imaginative "science fiction".

> There never has been a cultural-social revolution comparable in speed, and still the rate of change is accelerating. Statesmen believe that we can expect to see the world change as much within the next fifteen years, as it has changed in the past three centuries. In the past, humanity had a hundred years -- or the span of three generations -- for human beings to become accustomed to a new idea. Now human beings must be able to adapt to profound changes in a decade.

In magnitude, the cybercultural revolution is comparable only to the agricultural revolution, the ferment from which all civilization grew, that changed the earth from a jungle into a garden where food gatherers and hunters could become food growers

Editorial Board (incomplete list) Hannah Arendt Eugene Burdick Louis Couffignal Henry de Bivort Paul D. Foote Paul S. Henshaw Clyde Kiser Henry Morgenthau Aage Nielson Simon Ramo Bertrand Russell Robert Watson-Watt Norbert Wiener

^{*} The word cyberculture is composed of "cybernetics," the science of control, and "culture," the way of life of a society.

and harvesters and where human beings could begin to build civilizations. With the agricultural revolution man emerged into humanity; he learned to control his environment and to adapt it to his needs, and to arrange his life into social patterns. The agricultural revolution began to free man for his specifically human tasks. And man's very nature began to change.

Company of the Compan

But the agricultural revolution was only the beginning. For every society, in the age of agriculture, from the most primitive tribal village to the most sophisticated industrial-agricultural community, is part scarcity and part waste, part idleness and part drudgery. Only a few societies have ever known leisure — for a few individuals — none have ever known abundance but, at best, affluence smudged with poverty. No matter how the society is organized (whether drudgery is fairly evenly distributed or whether a few have leisure while others are fully occupied with the task of producing the means of survival), since the agricultural revolution, human energy has been partially freed for the tasks of civilization.

Even in our highly developed society drudgery still exists. We no longer need human slaves to pull river boats upstream. But untold millions must still spend their lives at deadly dull, repetitive tasks, both physical and mental, that produce no works of lasting worth but consumable goods that are necessary in order to sustain life -- possibly at a very luxurious level. Millions exist in boredom and busywork. And others must daily risk their health and their lives to earn their bread. The history of civilization is the story of man's search for the means to emancipate himself from the tasks he shares with all animals: the labor in order to sustain life; the dream of leisure; and the hope of abundance.

The cybercultural revolution is the culmination of this search with the discoveries and inventions that make it possible for human beings to be free of scarcity and drudgery. This freedom per se does not guarantee abundance and it does not confer leisure. After a thousand generations men have learned to walk under their burdens with a steady gait; and nobody can be sure how we shall fare without our accustomed loads. If man no longer needs to pull the plow and clear the fields and forge the iron, he must find other tasks on which to spend his days. If his sustenance is provided by the machine systems his mind conceived, his mind must find a purpose for his life.

How will he fire his muscles to earn his rest? How will he use his mind to earn his peace? How will he stand upon the earth he has not tilled in the sweat of his face, and feel that he is its master? What purpose will he find for his life, if he no longer has to labor to earn his right to live?

We know so little about living human lives, in leisure and abundance, in dignity and self-respect, in privacy and the assurance of the fundamental human right to be unique as an individual. The dreams of mankind are in our libraries, the hope of mankind is in our hearts, and the fears of mankind are in our minds. We have little time in this century of transition

to sort the dreams of mankind of the Good Life from the superstitions of the past, to distinguish between "the mighty hopes that make us men" and the mirages of despair, to face the new challenges of man's future with intelligence, not merely with selfish cunning.

For centuries and in every land, men have told stories about all-powerful, completely obedient slaves who would supply their masters' every want. The brooms conjured up by the sorcerer's apprentice, the genie in the lamp, the monkey's paw -- all are stories of man's desire for a perfect slave and also of his fear to be unable to control him. The fairy tales of the ages are becoming the truth of this century, and the genie in the lamp is ours. All the miracles science can discover and technology put at our disposal are ready to serve us, if we have the wisdom to direct them for the good of mankind.

In our eagerness to find the genie in the lamp we seem to have forgotten why we sought him and what we want him to do. Men live in isolated fractions, some controlling the lamp, others wondering what they would do if one could be found, others hating the lamp for the evil it might be commanded to do instead of fighting the evil and finding a way to use the lamp for the good it can do. Scientists think they are the most human among men because they discover the secrets of nature and invent the means to control it. Philosophers think they are the most human among men because they alone seek the Good Life. Artists think they are the most human among men because they alone seek beauty. The most human among men are those who find the balance of science, philosouhy and art complementing one another to form a harmonious whole : a great civilization. Mankind has learned too much to persist in fractional thinking. In the past, there was a unity of knowledge and beauty sought, and when division into disciplines began there was a tendency toward balance directed by the traditions of the past.

In the frantic acceleration of technology (for reasons too complex to be discussed here) the balance has been upset. And mankind stands on the brink of disaster, but also on the threshold of greatness. We must regain the harmony of balanced knowledge. For science without a philosophical contemplation of the world is dangerous, and philosophy without an understanding of modern science is foolish. And neither science nor philosophy can flourish without the understanding and appreciation of the harmony and beauty that is art. All human endeavors must be carried out with moral conviction based upon ethical concepts -- lest the potential heaven promised by the discoveries of nuclear physics become a certain hell, and lest the potential dream of leisure and abundance produced by the discoveries of cybernetics become the certain nightmare of Schlaraffenland.

Only by knowing the promises of this dawning age and its potential greatness can we intelligently and responsibly make vital choices that will -- perhaps for millenia to come -- determine the fate of mankind.

To make such tremendous choices is the task of this generation.

Every book in this series should contribute significantly to the purpose of this series: to make a serious contribution to those whose task it is to make choices in their own lives and as informed citizens of a turbulent world. Much has been written about the dangers of the age, but we have had little time to contemplate its promises. This series is not intended to be a contribution to the literature of fear. We know that humanity might not see the dawn of the twenty-first century. But we also know that the promises of leisure and abundance are as real as the dangers of idleness and thermo-nuclear destruction. When hope is as rational as fear, it is wise to choose hope and much more likely to be fruitful.

The important criterion for inviting anyone to contribute to the series is that he have something important to say that is relevant to the future, refreshes our memory of man's vast experience, clarifies the issues that must be decided, and illuminates the choices that must be made. Some authors will be at the apex of their achievements, some may not have reached wide-spread recognition yet. We do not seek great names for our book jackets, but great thoughts for our pages. Most of the volumes should be short -- 150 to 250 pages -- but the format of the books will be flexible enough to permit every author full expression. The subjects to be discussed in the series range far -- nothing is outside the range of consideration, and every suggestion for a book must be decided upon its own merit.

It is to be hoped that every author contributing to this series will have a specific area of knowledge and interest that he wishes to share with his readers. But it is essential that he is also a generalist whose special knowledge and interest is built upon a firm base of understanding the unity and greatness of human wisdom of which he is a part. Whatever his specific subject, it is to be hoped that every author will write scientifically, philosophically, artistically -- and from the richness of his life experience. For the magnificent edifice built by the human mind is the home of man, and man cannot describe his home and his work without illustrating also his life and his thoughts and the very nature of his being.

The Editorial Board is advising the General Editor about specific subjects that should be included in the series. All members will, it is hoped, often recommend authors for the series and occasionally review manuscripts. Every member of the Editorial Board has been — and will be asked to serve because he is a person of specific expertise and, more importantly, of catholic interests and a clear understanding for the basic harmony of science, philosophy, and art, and for the importance of building bridges.