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CORRESPONDENCE

Aug, 1960

N. WIENER · MC 22



[ca. Aug., 1960]

# Massachusetts General Hospital

Boston 14

IN BOSTON  
GENERAL HOSPITAL  
BAKER MEMORIAL  
PHILLIPS HOUSE

BURNHAM MEMORIAL FOR CHILDREN  
HALL-MERCER HOSPITAL  
HUNTINGTON MEMORIAL HOSPITAL  
VINCENT MEMORIAL HOSPITAL

DEAN A. CLARK, M.D.  
GENERAL DIRECTOR

IN BELMONT  
MCLEAN HOSPITAL  
ALFRED H. STANTON, M.D.  
PSYCHIATRIST-IN-CHIEF

IN LINCOLN  
STORROW HOUSE  
CONVALESCENTS)

Professor Norbert Wiener  
c/o Professor Cajaniello  
University of Naples  
Naples, Italy  
Dear Professor Wiener:

We have heard from Morris Chafetz that your trip to Russia was very successful, and I hope you are equally well enjoying your stay in Naples.

There have unfortunately been some additional delays in the long-persistence studies, as I think you have perhaps learned from Charles Robinson. In the meantime, however, the relevance of non-linear approaches to biological phenomena has remained at the fore. I am enclosing some remarks I made during the discussion sessions at the Cold Spring Harbor Symposium on Biological Clocks last June; I do hope that I have made an intelligible representation of this problem, largely quoted from your own book, as you will see. (You may note also the remarks about fireflies, about which I have done a little reading over the summer). I really do think that your concepts in this area may have rather widespread implications in biology as well as in physics and chemistry (if those two are in fact separable).

I have recently begun some preliminary experiments to study in a quantitative fashion, the effect on the EEG of flashing at a frequency near to that of the resting alpha frequency of the subject-- the relationship of this investigation to the theory of non-linear processes is obvious. As complementary mock-up experiments, I have made some studies on the "entrainability" of sawtooth oscillators (phantastrons) to an external signal, with some interesting results (to me in any event, although I suppose they could have readily been predicted beforehand). I am also enclosing a preliminary draft of a paper that suggests how temperature effects might be minimized in oscillating biological systems; it is a joint paper with Dr. Ehret of the Argonne National Laboratory, and will appear in the Cold Spring Harbor Symposium volume. I am not sure that, from the standpoint of variations of frequency with temperature, the paper adds very much to what Hudson Hoagland said 20 years ago, but the question has at least cropped up again in connection with diurnal rhythms.

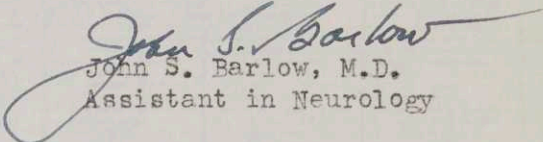
It is all right, I hope, if I have mentioned you as a reference in an application for a Senior Research Fellowship from the Public Health



Service in order to permit me to continue my research work at the Massachusetts General and at M.I.T. (I shall remain here after Mollie Brazier moves to the Brain Research Institute at UCLA on February 1.) I think that the reviewing committees, etc., for these fellowships are the same as for the Special Fellowships of the Public Health Service, for which you so kindly wrote a letter for me last spring, and therefore I hope that they will not trouble you again so soon for another letter.

My very best regards to you and Mrs. Wiener.

Sincerely,

  
John S. Barlow, M.D.  
Assistant in Neurology

[ca Aug. 1960]

Dear Prof. Wiener:

I can't possibly describe my elation at having heard from you! Ich hätte gedacht das Sie mich vergessen hätten.

Der Brief hat mir sehr Freude gemacht. Dank von Herzen.

Here at the lab experiments on obtaining the power spectrum from the central nervous system of a crayfish ~~is~~ being done.

Of course I am following it and learning.

Have read the papers and articles that came to you so as to be able to save you the time of going thru them.

One article was particularly offense and assinine to Cybernetics. Since the author asked for criticism, I gave him both barrels in the true method of Mon Monsieur Grandpère!

Can not wait to hear from you - for I get inspired at just knowing you haven't forgotten me. My Best to

Mrs. Wiener.

your Student;

John  
[Kotelly]



Harston House  
Harston  
Cambridge

1 August 1960

My dear Professors + Mrs Wiener,

This is to inform you, first that I escaped unscathed, and second that your account should shortly be augmented to the extent of twenty dollars by a draft from Wether and Forbes, Trustees + Fiduciaries.

Your presence in Leningrad played no small part in making me believe the USSR was not really such a bad place after all. And yet there was that unisonly revealing moment, when the plane landed in London, and all the westerners aboard heaved in unison a great sigh of relief. It's not a place I would recommend for a relaxing holiday.

With kindest regards,

Yours sincerely,

Terence Armstrong



BY AIR MAIL  
PAR AVION  
AIR LETTER  
AEROGRAMME



Professor and Mrs Robert Wiener,  
53 Cedar Road  
Belmont  
Mass.  
USA.

First fold here

Second fold here

Sender's name and address:

Dr Irene Amstrong  
Harston House  
Harston, Cambridge

AN AIR LETTER SHOULD NOT CONTAIN ANY  
ENCLOSURE ; IF IT DOES IT WILL BE SURCHARGED  
OR SENT BY ORDINARY MAIL.

To open



# THINK

PUBLISHED BY

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NEW YORK 22, N.Y.

OFFICE OF THE EDITOR

August 1, 1960

Mrs. Eva-Maria Ritter  
Department of Mathematics  
2-276  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

Dear Mrs. Ritter:

At the request of Mr. Arthur Herzog, we are sending you herewith a copy of his interview with Dr. Norbert Wiener.

Mr. Herzog also asked us to inform you that Dr. Wiener is to keep the photographs.

Sincerely yours,



(Miss) Claire Clark  
Editorial Associate

Enclosure



# *The Saturday Review*

25 West 45th Street, New York 36, N. Y.

John Lear  
Science Editor

August 1, 1960

Dear Professor Wiener:

Miss Helen Deegan, of America Illustrated, has asked permission to publish in that journal (which, as you undoubtedly know, is distributed by the State Department in Russia in the Russian language) a translation of your observations of the responsibility of the intellectual, as it appeared in The Saturday Review.

Have you any objection to such use of the material?

Sincerely,



*Answered*  
*Aug 21*

Mr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts



## MEMO ROUTING SLIP

NEVER USE FOR APPROVALS, DISAPPROVALS,  
CONCURRENCES, OR SIMILAR ACTIONS

1	NAME OR TITLE Mrs. Eva-Maria Ritter	INITIALS	CIRCULATE
	ORGANIZATION AND LOCATION MIT, Cambridge, Mass.	DATE	COORDINATION
2			FILE
			INFORMATION
3			NECESSARY ACTION
			NOTE AND RETURN
4			SEE ME
			SIGNATURE

## REMARKS

It is suggested supplemental voucher be submitted to cover phone calls of Prof. Weiner. Attached is a blank voucher form to be completed, signed and certified and returned for settlement.

FROM NAME OR TITLE H. R. Logan, AFCCDD CCCFT-2	DATE 2 Aug 60
ORGANIZATION AND LOCATION Hanscom Field, Bedford, Mass	TELEPHONE 2245



Prof. Dr. Norbert Wiener  
Massachusetts Institute of Technology  
Massachusetts  
U.S.A.

---

Gaza, August 2, 1960

Dear Sir,

Since long time I desired to contact you, to express you my best compliments and gratitude for all what you have done for the advancement of sciences, and most impressive building of theories explaining human behaviour. Being far from exaggeration, I can say that cybernetic was an edge of a new civilisation, and a real conception of life, and living matter creation. My admiration for your work was so great, that it has about to inhibited my intentions to ask you a favour concerning your researches dealing with the "autocorrelator" of brain waves. I can say you that any communication or any reprint concerning this subject might be of a great help for my proper studies concerning physiology of behaviourism. If it would not means disturbance or inconvenience for yourself, can you give me any data, bibliography or reprints concerning latest news in this field.

I believe that you would kindly help me in this matter, and I am very glad to thank you in advance for your kindness

very sincerely yours



Dr. Mahmoud K. Muftic  
Gaza, PALESTINE  
via Egypt, U.A.R.

Answered:  
Aug. 26. '60



August 3, 1960

Dear Dr.

Are you an M.D. I know what each of the  
 professional people believe and know what the T.O.P.  
 professional of each segmented corner of their green chain  
 thinks his doing - all I can involve for you is medicine.  
 It's a bit difficult to place yourself in the position of one  
 man alone in any field and try to divine his actions as  
 based on what he feared and was taught to fear. Now  
 I assume you are a medical man. What little I can tell  
 you may never restore your confidence in medicine, but  
 mine remains unshaken. It will go the full cycle Dr.  
 if there is time. The national committees will be  
 slowly reinforced through the same diabolical forces which  
 cause the deformation. If there were to be time, I  
 will tell you what I know anyway, in my own crude language,  
 & apologize. It's all I have.

Nature still does not tolerate to term, prenatal  
 defects of mind and/or body.  
 The systems involved a six week's direct voice  
 reading, low volume, progressive wording, to create  
 abnormality. I have examples, I am leaving. As soon  
 as I am resettled, I shall send you their aloud conversation  
 of progression. These you can use as basis for any medical  
 indoctrination via wording, which you chose. I assure you  
 the following need not be repeated by me.

Human pregnancy: term differentiation from  
 base 7 months in 1900 to base 9 months in 1940.

Healthy little de "Willems"  
 The malformation of the uterine sac during  
 pregnancy. Why don't you do something worthwhile  
 Dr. Must women suffer the deformity of miscarriage  
 remote control to defy nature, or to defy rationale?  
 In 30 sets. In 1900 and before, average birth was normal  
 at 3 or 4 pounds. And YOU KNOW IT. The grotesque  
 mistreatment and obvious childbirth deaths by remote  
 control, causing term births among European immigrants  
 then the 20's & 30's - of 12 to 16 to 18 pounds - what did  
 you ever do for them? How you'd lead



Ok. It's better. Common sense reigns. Now it's 6 to 8 lbs. and stitched.

In 1950 epidemics: flu - by direct mike reading at high volume. To cities. Not just villages. Fear to say they heard voices. Of course. Virus hell! Effecting gives cause. 40 years later. So now the boys have isolated God knows what. And they never will know. J.B. Diphtheria, MEASLES, Fever blisters, carbuncles, POLIO Dr. Polio is radio beam vibration plus 10 long weeks of conditioning to complete muscular malfunction. Talk may have found something. It was no polio virus. I thought you might be glad to know that someone of a younger generation knows what a GONAS is in slang. I had POLIO twice. Once at age 13. Shock violently for 72 hours. Plus some audible rattle. In Michigan. Then we were told that once you had any kind you could not get another. Fine. And NQW? Strange how it hits in locales, isn't it? In 1959 I had a demonstration in 3 parts - with volume. They're able, on direct speaker deflection and reflection, to cause sexual inhibition or abandon to a zone which includes their 8 to 10 slummy rigs, so located as to hit 10 to 24 apt. buildings at one time. It's quite amazing to feel natural muscular contractions for the first time in your life doctor. Alone or with intercourse. If you were a female, and alone when such a thing happened, would you tell anyone? Introduction of lesbianism, nymphomania and masochistic practices I'm sure you can evolve alone. All the way from 12 years old to 50 Dr. Just whoever it hits guy.

In 1920 their production of malformations (pre natal) was good. But less, spayed lambs, cleft palates, true club foot (NOT before 1900 - Wilder was an accident victim), underdeveloped limbs, over developed pituitary. Their crowning glory was V.D. by suggestion. And resultant blindness, "insanity" and "congenital" remote control defects. All because men at war are afraid to speak up. Intercourse with animals is now abnormal - foreign "germ" introduction -



constant fear readings plus lack of knowledge that the healthy organism will sublimate any foreign body. So possible loss of manhood, to physical symptoms to a name. Congenital, yeah. And in six weeks time, and a quick up on any man ever so you conditioned at any future date. Blind babies Doc. And hundreds of thousands of "sympathetic insanities" it work on. Congratulation.

They're god. In 3 all night tape readings, you get "spontaneous abortion" - with or without measles. They set up their tapes. They do work hard. 3 min control a city of 4 or 5 million. It's overlap play. Example: you have this: a drunk, a whore, a few married females, a few young husbands, a couple of dope addicts a couple of cases of food poisoning. At 11 P.M. exactly - simultaneous tapes are played. Your drunk vomits, your whore vomits your young marrieds vomit, the young husbands in "sympathetic response", your dope addicts have attacks, you have a pregnant woman at 50 and a couple of children (are rushed to a hospital).

(R M T X) The social implications are even better. I become an alcoholic - I'm sure I've got V.D. and am pregnant, pregnancy becomes abhorrent to both sexes, people who have raised their families begin again, he to be a widower, I need MORE dope + obviously, and a decent businessman put out of business by two civil suits he can't pay and a lifetime of work and decency goes down the drain. Let it rot in Norbert. You can as well

predict an entire population. Go go play mechanic. You can set up interference. **ONE TRAITORS**  
**MURDER AT LEAST 1000 PEOPLE IN EVERY**  
**CITY OF 1 MILLION A YEAR.** The deformity rate is worse. That's done in ALL relay stations. Some try tape. The boys travel, honey. Selling PSYCH ONOMY (MURDER via Psych OLOGY - Psychology - the study of social death via radio



induced, reproduced, stimulated and simulated  
fear.

I've handed you the locations. Revisit the  
CAUSE again before you die.

I can explain to you exactly how it's done,  
and evolve the systems of overlapping reading,  
in a well trained monster. With excellent notes.

I'll let you know where I am. It's about  
time you reacted normally again. Our recent  
medical men are stumped. Who needs curls, we  
need to eradicate CAUSE. I can say it  
recognize it all, and live with it. Surely you  
can, Doctor.

It's a little late in life to beg you to grow  
up. We get news for you. Once we do get into  
space, the earthquakes will increase. I did it  
you know you can blow up power lines as well  
as foundationless buildings with beams? WHO  
do you think is going out to colonize? The fear  
ridden American with his unspoken disease  
propensity, or propensity? High age old boy. The  
Klu Klux to Halloween is XMAS (X+M+A)  
or the Christmas seal hoop? That's + + + or +  
Who the hell has been helping who here?

Relax. I know the routine. It's simple.  
You take away their little toys on legal grounds -  
of suspicion - once you have 'em, you rest easy.  
And science may pull itself together again. 25,000  
years so desert can throw in the towel.  
I don't like you. See help you because  
you were well intentioned. You've been an idiot.  
Why fight to duplicate a recognized method?  
That is insanity.

You'll hear from me.

Barbara Gordon



Committees of Correspondence  
130 Brattle Street  
Cambridge 38, Mass.

August 3, 1960

Professor Norbert Wiener  
Massachusetts Inst. of Technology  
Cambridge, Mass.


Dear Professor Wiener,

Enclosed is the final draft of the Statement of the Committees of Correspondence, which we hope soon to print, along with a list of those who support the Statement. It is our great hope that we will be able to add your name to this list, and to the number of intellectuals that support the movement.

With this Statement as a basis, we hope to stimulate research by thinkers and scientists of concern and imagination into ways of achieving peace, and of ordering a world so that peace could be maintained. Saving the world from an atomic war requires a whole new effort of imagination, and a new conception of the problems posed by world affairs, and it is in this intellectual effort that we hope you will join.

If you are willing to be listed as a signer, please let us know at once, since the Statement will soon be going to press.

Sincerely yours,

  
Catherine Kassarian,  
secretary



Final Draft, August 1, 1960

## STATEMENT OF

### The Committees of Correspondence

We, the undersigned, have joined together because we fear that, unless we and others can offer an alternative to the search for security through nuclear deterrence, civilization will be destroyed by war. We hope, too, that as we seek for an alternative, we will also be developing new modes of social growth. The present dependence on mass violence as the ultimate arbiter of conflict, and the investment in armaments, plunge us into a current so awesome, fascinating and demanding that the complex and courageous steps that must be taken to end the arms race elude us. We have not given up hope, although we recognize the obstacles to peace, and the radical changes which it eventually would require in our society and in the world. We must have the courage of our imagination, questioning the values that the Cold War has entrenched; we must put our faith in man's potentialities for growth rather than in machines for destruction.

With this fear and this hope in mind, a group of us met at Bear Mountain, New York, in March, 1960, and began work on the Statement that follows and made plans to create Committees of Correspondence to carry forward the debate and discussion begun at Bear Mountain. This Statement is not a finished declaration or blueprint, but a step toward further analysis and research, specific proposals, and political action to come. We ask others to help us to enlarge our understanding, to bring us new tools of thought and action, to imagine and then chart a future. We hope to contribute ideas and moral and organizational support for a debate across the country. Small as is the chance for a rebirth, great as looms the specter of destruction, we want your help in seizing that chance.

#### THE GROWING CRISIS

Weapon developments of the past decade have swiftly and decisively altered the nature of war. Only within the past five years have thermonuclear weapons been tested from airplanes. Intercontinental missiles have been tested only during the past three years. We are now constructing long-range submarines, each autonomous, each able to obliterate more than a dozen cities. In a score of countries, reactors are now producing plutonium, a nuclear explosive. We cannot long entrust our lives to small numbers of men with the means of mass death at their fingertips, men filled with fear and conditioned to accept without question orders to kill tens of millions of individuals.

Willingness and ability to destroy other populations do not provide security. Limited conflicts may grow uncontrollably. Temporary shifts in military power may motivate a country to initiate a preventive war. In situations of tension, failures of men and equipment can lead to disaster. Other countries, in their local feuds, may ultimately involve the major powers. The spread of nuclear weapons to many countries, some with shakier traditions than those of the present nuclear powers, creates still greater instability. Dangers from repeated risks mount toward certainty. Against these dangers, nuclear deterrence provides no security at all.



Even if the spread of nuclear weapons does not bring about a blundering or accidental catastrophe, reliance upon nuclear deterrence creates a moral climate that is plainly corrupting, for it inevitably tends to commit us and our opponents to policies which may condemn the unborn and the non-belligerents to extermination. By mutual provocation and propaganda, military personnel on both sides acquire the power to affect the moral climate of our time, to project their ethic on the whole of life as it has developed on earth.

We reject reliance upon weapons of mass destruction, and the logic of deterrence, as the final arbiter of international conflict.

### THE NEED FOR ALTERNATIVES

We have become so accustomed to reliance upon nuclear deterrence, disguised as "security," that its rejection creates a vacuum that appears equally frightening at first glance. Conflicts among nations exist and will continue to exist, and we must consider how to keep alive our basic values and defend our tradition of liberty in the absence of the self-defeating policy of deterrence. Today the choice before thinking Americans who are concerned about the future of the nation and of mankind is not total surrender versus total annihilation. This idea is either a deliberate invention to support the massive retaliation doctrine and the Cold War, or the stark formulation of helpless fear. The question before the United States today is whether to abandon all initiative in the international situation and continue to be guided by the logic of deterrence and the arms race; or to take up the initiative once again and experiment imaginatively and courageously with ways to slow down and end the arms race. We call for unilateral steps toward disarmament both on principal and as a practical strategy, which represents neither surrender to Communism nor wishful fantasy, since no country courageous and rational enough to thus disarm would be an easy victory for any form of dictatorship. We risk a great deal in reliance on nuclear arms: we must be willing to take risks in pursuit of peace.

Thus, if we had acted on this perspective at Geneva, we would have accepted the risk that there might be some undetected small-yield nuclear explosions in exchange for the establishment of a supranational authority in the area of arms control. Now in the aftermath of the Summit collapse, we should at least resist the urge to resume our own testing. The same determination to risk for peace would prevent us from undertaking a program of civil defense, as this would provoke counter moves from the other side, and increase the psychological danger of war by making war seem more tolerable. The conversion to constructive work of laboratories now engaged in developing chemical and biological poisons might be another form of unilateral initiative we could take. In an age when the security of all nations is threatened by the nuclear arms race of the major powers, these would be actions in the interest of all nations, which would enhance rather than reduce our security.

### POLITICAL CHANGE

As we move in this direction, we must begin to think about the new role of force in the world, and about the deployment of the enormous energy and skill that have gone into the building of the war machine; we must think of meaningful employment for those Americans who have been heavily dependent for incentive upon military competition with the Communists. The reliance upon military deterrence, far from effectively countering Communism, has turned our attention from these problems, and the vaster problems



of adequate policies to deal with world conflict. Plainly, our attitude immobilizes those elements within the Iron Curtain countries which seek increased international contact and exchange and who (notably in Poland) hope for relaxation of the Cold War as the necessary condition for slow accretions to their freedom. In the same way, our preoccupation with nuclear competition with the Soviets tends to obscure our even more intractable conflicts with China. These first generation revolutionaries, engaged in the early stages of forced industrialization, seem less humane, and may have less reason to be frightened of nuclear war than the Russians: our present policy gives them incentives towards acquiring, through a reluctant ally or under their own steam, a nuclear "capability." Slim though the chances may be to influence China's internal political life, we must nevertheless seek to end China's international quarantine, initiate an exchange of people, ideas and goods, and bring the mainland Chinese into major international negotiations. We must try to change the international atmosphere, to break through the vicious circle of distrust which transforms negotiations into propaganda battles, and deepens the world's despair.

The myopic focus on military strength blinds us to our overriding common interests with all countries. We have a deep responsibility to contribute effectively and promptly to the economic and social development of other countries, instead of drawing them into the nuclear conflict. The great populations of Asia, Africa, and South America seek a more representative influence on world affairs. Only the creation of political and economic structures capable of realizing the technical possibilities and human potentialities can meet the needs of these dynamic societies. We must not impose the Cold War upon them, but encourage new solutions which do not necessarily parallel either the Soviet or the American systems. Sacrifices for the benefit of world growth and development, for abolishing hunger, disease, and degradation, must replace the sacrifices of mass death in war.

We believe that in this interdependent world, threats to the security, or obstacles to the future of any group, endanger the future of us all. Purely national loyalties have become an anachronism. We must create a deep loyalty to all men, a loyalty capable of supporting international institutions, and the reign of law in international life.

#### THE AIMS OF SOCIETY

Any large society will contain fanatics who are willing to kill people in pursuit of absolutist aims or out of sheer, if well-rationalized, destructiveness. But most of the men who are involved in the policy of deterrence are neither fanatics nor personally destructive. We must therefore ask why so many of them are either blind to where their actions lead or cynical about it - even despairing - or lacking in the imagination to contemplate consequences and possibilities. In our judgment, the continued acceptance of deterrence as the basis of defense reflects a deep malaise from which, in varying forms and degrees, both the Western and Communist blocs suffer. Men who do not value their own or others' worth as individuals, who find life boring and sterile, may also lack the zest, inventiveness, and sense of solidarity that might unite them in a search for new approaches to the problem of survival.

Instead of using our abundance to develop our humanity, many of us have let the values of production and consumption dominate us. Means which should serve our material and spiritual needs and help us more fully to realize our human potentialities have instead become ends in themselves. Deprived of control over circumstances, we often sink into apathy and irresponsibility. Or driven by insecurity and fear, we strike



out violently against others and ourselves, destroying the fabric of community which might support our self-realization.

If we are to meet our present crisis, we must reorganize radically our approach toward life. We must replace blind response to political and economic pressures with an effort to shape our political and economic environment. We must create the means for the decentralized control by citizens over the essential parts of our society.

CALL TO ACTION

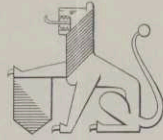
We ask people consciously to reject the idea that democratic values can now be defended or international problems any longer solved by military means.

We ask people with knowledge, insight, and skill to turn away from developing military technology, from providing rationalizations for nuclear deterrence, and from planning for organized violence. We ask instead that they join with us in constructing alternatives.

We ask you to join with us in a concerted effort to press these considerations on the attention of our government and of our fellow citizens. We invite all with similar convictions to unite with us in establishing Committees of Correspondence for the development and dissemination of our ideas and for an unremitting struggle for life.

COMMITTEES OF CORRESPONDENCE  
130 Brattle Street  
Cambridge 38, Mass.





## HOTEL BAUR AU LAC ZURICH

ADRESSE TÉLÉGR.: BAURLAC · TÉLÉPHONE: (051) 23 16 50  
PROPR. H. KRACHT'S ERBEN

Zurich, August 4, 1960

Dr. and Mrs. Norbert Weiner  
c/o American Express  
STOCKHOLM  
Sweden

Dear Dr. and Mrs. Weiner,

I'am writing this from the lobby of the Baur au Lac awaiting a room availability. I have been up all night travelling from Romans, France via Genève to here. When I finish dictating these several letters I will try siesta.

Thank you for your pleasant note which followed me to Paris. **I** would imagine the Russian experience quite exciting and hope to hear the details in person shortly.

Interestingly enough, one of the points holding the conclusion of our negotiations with our second English licensee (thank Heaven our 1st was finally signed two weeks ago) is my insistence that the Russians do not view any of the installations in their factories. Small point, but I feel Christmas comes but once a year.

Of the several impressive sights during what will be 3 weeks here was last week at the registration desk of a small Amsterdam hotel where a middle-aged couple produced their Israeli passport to make their homeland known. The reaction was warm and good.





## HOTEL BAUR AU LAC ZURICH

ADRESSE TÉLÉGR.: BAURLAC · TÉLÉPHONE: (051) 23 16 50  
PROPR. H. KRACHT'S ERBEN

- 2 -

While I plan to return to Boston the day after tomorrow, several things need personal settling plus a recommendation from the largest French shoe machinery people that I return to take in a trade show September 8 - 13. Thus we may yet share time together - possibly in Belgium. I'll keep in contact.

Sincerely,  
BROMFIELD ASSOCIATES

Morton Bromfield



# ELECTRONICS ILLUSTRATED



A Fawcett Publication  
67 West 44th Street,  
New York 36, N.Y.  
MUrray Hill 2-3606

AIR MAIL

August 4, 1960

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Professor Wiener:

We are very much interested in Professor Abram Kobrinski's bioelectric artificial limb, which we understand you saw at the recent Moscow conference on automation. We would like to get in touch with Professor Kobrinski at once and would be grateful if you could provide us with an address at which he might be found.

Our Feature Editor, Mr. N. A. Rosa, has asked me to secure this information.

Thank you for your attention.

Very truly yours,  
ELECTRONICS ILLUSTRATED

A handwritten signature in dark ink, appearing to read 'Maryann Pendzick', written in a cursive style.

Maryann Pendzick

NAR:m



August 4, 1960

Prof. Lynwood S. Bryant  
Director  
Technology Press  
14N-325  
M.I.T.

Dear Prof. Bryant:

I had a letter today from Prof. and Mrs. Wiener, and mention was made of the book "Cybernetics", especially of the preface and its paragraph of acknowledgements. Prof. Wiener suggested that the following be inserted at the proper place:

"As appears in the original version of Cybernetics, the ideas which led to my work in the field and to my writing of the book were developed in a continual exchange of ideas between Dr. Arturo Rosenblueth and myself. This work was part of our joint undertaking, underwritten by the Rockefeller Foundation.

I must also give much credit to a colleague with a similar name, Dr. Walter Rosenblith of the Massachusetts Institute of Technology in whose laboratory the analogue autocorrelator, which we have used, was devised and who has given me every assistance in obtaining data and in carrying on my work.

Here I must also mention Drs. Mary Brazier and John Barlow of the Massachusetts General Hospital who have furnished me with magnetic tape records of several electroencephalographic recordings of themselves and of others, which we have worked up into autocorrelation curves in Dr. Walter Rosenblith's laboratory. To all of these colleagues as well as to their younger assistants who have helped me in my work I wish to express my heartfelt thanks."

Would you do me the favor of enclosing this letter with the rest of the material in the CYBERNETICS drawer of Miss Boyd's office? Thank you, too, for all your help and cooperation in this matter.

Sincerely yours,

Eva-Maria Ritter (Mrs.)  
Secretary to Professor Wiener



August 4, 1960

Mrs. Mary D. Spearman  
Computation Center  
The University of North Carolina  
Chapel Hill, Carolina

Dear Mrs. Spearman:

I have received both your very kind letter and ten zeroxed copies (plus the original) of Prof. Wiener's article.

This is indeed ample reward for my lending you our copy. I am pleased to hear that the material was found interesting, and I thank you very much for your thoughtfulness.

Sincerely yours,

Eva-Maria Ritter (Mrs.)  
Secretary to Prof. Wiener



August 4, 1960

Dear Prof. and Mrs. Wiener,

Thank you for your kind letter and check (\$40.94). It sounds as if you have had an interesting, but also, as you said yourself, a strenuous time in the Soviet Union. The main thing, however, is that you enjoyed it.

Now, again to office matters: I have typed up Prof. Wiener's suggestion re the preface's paragraph on acknowledgements and sent it along to Prof. Bryant as Miss Boyd is away.

As to the chapter on brain waves, Dr. Barlow has been very kind in checking curves and text carefully. He asked me to tell you, however, that he has established that the 10 per sec. peak in the correlogramme for Dr. Barlow does represent crosstalk from the 10 per sec. sound wave that was recorded onto another channel of the same tape. Therefore, he is in the process of analyzing other curves from the view point of the illustration in the book's chapter on brain waves. He plans to send you the results of this in, perhaps, late August or early September along with some suggestions or minor alterations in the text. He has talked all this over with Prof. Bryant, and as far as time goes, it is perfectly feasible.

I am indeed being caught in this desperate feeling of "I'll never get this done in time", but I have decided, if possible, not to get too nervous. I don't know if I shall have a chance to rest on the boat, but all I am dreaming of at this time is to put my daughter Gigi in the nursery for 3 hours a day and do nothing but sleep in the sun. Of course, it probably won't turn out that way.

No, you have not yet sent me the vacation money. This is very, very kind of you, and I regard it as a special favor. If it is easier for you, you might as well give or send it to me in Germany. I sent you my address in my last letter, but I shall type it out again at the end of this letter.

As you are going to Belgium, will there be a chance that you will go to England? I am supposed to tell a Mr. Stafford Beer of Cybor House in Sheffield when you go if you go. Prof. Wiener met him on one of his last days here, and we have had correspondence with him.

Once more, my very best regards,



Stockholm  
5 Aug. 1960

Dear Professor Wiener,

We are sending separately the book and the manuscript because of postal regulations. I finished "The Tempter" last evening and found the whole of the book fascinating. It makes me eager to have another conversation with you about it. I also read the abstract of your new novel, which is enclosed, and I shall look forward to the completed work. I think I detected some documentary elements in this one too!

Once again let me say what a joy it has been for Martha and myself to meet you both and to find such immediate bonds of sympathy and understanding. We are returning to Washington in November of this year and would like very much to know where we can reach you.

With warmest best wishes to you both

Yours very sincerely,  
Paul Birdsall



Michael George Corson  
610 West 142d Str.  
N.Y. 31 N.Y.

*Conf. P*

Professor  
Norbert Wiener  
Massachusetts Institute of Technology.

Dear Professor,

I hope to be excused for addressing a few questions directly to you. I do so, because no text that I bought was lucid enough to get the answer from there.

First questions

On a curve that should be describable by a simple equation

$$y = A(a^x - b^x) - B(c^x - d^x)$$

are located six properly chosen, experimentally determined, points.

Can any computer find the values of all six factors under the following limits of precision:

A between 5 and 10 with a precision to the second decimal. B from 1 to 5 with the same precision.

Decimal logs of a and c between plus or minus 0.000100 and zero with a precision of 1%.

Decimal logs of b and d - 0.0100 to zero, with a precision of 2%. | Second question:

Can a computer yield the four complex roots of an algebraic equation of the fourth power or break it up into two quadratic equations?

I shall greatly appreciate your answer. I got nowhere by applying to the International Business Machines Co.

Respectfully

*M. G. Corson*



August 8, 1960

Mr. Walter Yust  
Editor  
Encyclopedia Britannica  
425 N. Michigan Avenue  
Chicago 11, Ill.

Dear Sir:

Although this letter is past due, I hope you will forgive me for the delay. It seems as if your invitation to Prof. Wiener to write the article ROBOT for your encyclopedia was never acknowledged. Prof. Wiener, prior to his departure for Europe, was terribly busy with lectures, the preparation for various articles, etc. In the midst of all that, however, he did manage to dictate in snatches the article you had requested. I have made a rough draft of this and we are working on its final shape.

The question is now: Are you still interested in such an article by Prof. Wiener or have you in the meantime, due to our complete silence, decided to give the assignment to another person? In either case, I should be grateful if you would notify me of your decision as soon as you find it possible. I am going to Europe for 3 months where I shall also be in touch with Prof. Wiener and where I would finish the typescript. I am enclosing an envelope for your convenience. I know that this assignment was very badly handled on our part, and I am terribly sorry that I did not have a chance to take care of this sooner than now.

Sincerely yours,

Eva-Maria Ritter (Mrs.)  
Secretary to Prof. Wiener

Enclosure

# CBS TELEVISION NETWORK

*A Division of Columbia Broadcasting System, Inc.*

485 MADISON AVENUE, NEW YORK 22, NEW YORK • PLAZA 1-2345

RICHARD D. HEFFNER

*Director of Special Projects  
Information Services*

August 9, 1960

Dr. Norbert Wiener  
c/o American Express  
Berger Jarlsgaten 15  
Stockholm, Sweden

Dear Dr. Wiener:

When I spoke with Warren Weaver the other day, I was under the happy but mistaken impression that you were on the campus at M.I.T. A telephone operator had misinformed me, and so Warren wrote you a very nice letter introducing me--but sent it on to M.I.T. By this time, I hope that the letter has been forwarded to you and that I may write with Warren's praise paving the way for my questions and requests.

We at the CBS television Network are planning to publish a quarterly journal devoted to television. Our aim is to cover the entire range of the television art--writing, news, drama, technology--and to present informed, frank, freely-expressed commentary on such things as television's strengths and weaknesses, its history, its future and its effects on all aspects of our culture.

We plan to draw this commentary from observant persons active in many fields--sociology, psychology, theology, politics, education, science, journalism and the arts. Marya Mannes, Max Lerner, S. I. Hayakawa, Gilbert Seldes, and Charles Siepmann are among those who have written or will write articles for early issues.

As a political scientist before I came to television work, I have long been interested in an examination of the historical lag or gap between the development of communications tools and techniques, and their proper social use. When I spoke with Warren, he felt that I was correct in assuming that you would share this interest. I can only hope that you will be willing to develop it in an article for our new journal.

A piece running from 5,000-7,000 words would be appropriate--though if you are willing to write on the subject I have sketched, I would like to leave the exact length up to you. Our payment for an article of this type would be \$750., and we would like to have it at your earliest possible convenience.

I very much hope that somehow both the prospect of the journal and the potential of the article appeal to you and that you will be willing to make this contribution to a further understanding of mass communications.

I am sure you will understand that journals--even infant ones--are always pressed for time. I look forward eagerly to hearing from you soon.

Sincerely,



Richard D. Heffner

*Answered  
Aug. 26*

RDH:rg





PREMIER SYMPOSIUM INTERNATIONAL DE MEDECINE CYBERNETIQUE  
NAPLES (ITALIE) 2 - 3 - 4 OCTOBRE 1960

SECRETARIAT: VIA ROMA, 348 - TEL. 313184 - NAPLES (ITALIE)

August 9th, 1960

Dear Professor Wiener,

with reference to International Congress on Cybernetic Medicine to be held in Naples, we have pleasure in informing you that on Saturday, the 1st of October, there will be a preliminary meeting (of a number of representatives from various countries) to which you are invited.

We avail ourselves of this opportunity to confirm our offer of travel expenses, board and accomodation for yourself and for your wife, and are pleased to let you know that an apartment has been reserved for you at the Hotel Excelsior in Naples.

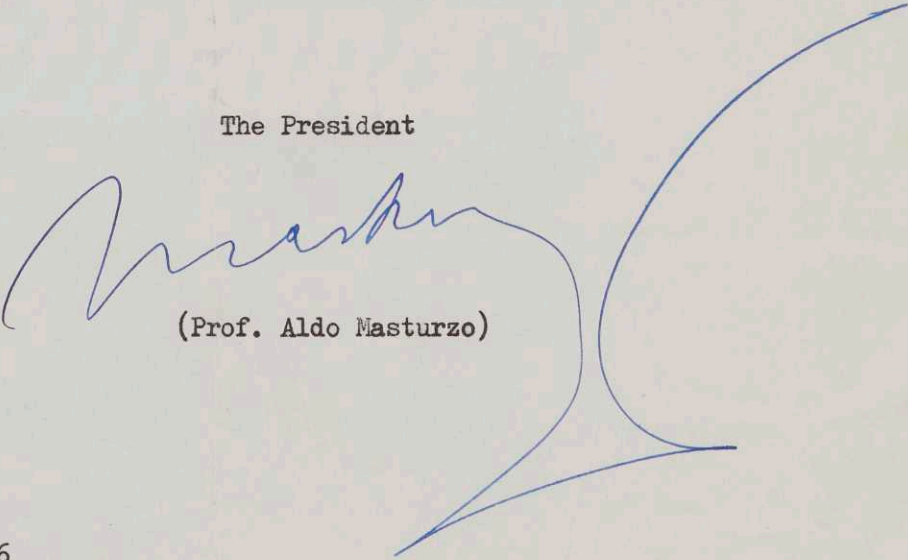
A reception in your honour will follow scientific sessions, which appear to be very interesting indeed by about 70 speakers (reports and communications) and the presence of more than three hundred members of 22 countries, with participation of Universities, Academies representants and Governemts delegates.

Please let us have, if possible, a summary of your report which will take place on Sunday morning, 2 October, at 11 o'clock.

We look forward to see you and your wife among us and, meanwhile, we remain

Yours truly

The President

  
(Prof. Aldo Masturzo)

Prof. Norbert WIENER  
53, Cedar Road, Room 2-276  
Belmont - Mass.



PREMIER SYMPOSIUM INTERNATIONAL DE MEDECINE CYBERNETIQUE  
NAPLES (ITALIE) 2 - 3 - 4 OCTOBRE 1960

SECRETARIAT: VIA ROMA, 348 - TEL. 313184 - NAPLES (ITALIE)

August 11, 1960

Mrs Eva Maria Ritter  
Secretary to Prof. N. Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Mass. U.S.A.

Dear Madam,

could you kindly send us the complete text o a  
summary in three copies of Prof. Wiener report in order  
that it may appear together with the definitive program.

We would ask you as well to inform us wheter  
Prof. Wiener will be in Naples on Saturday the first,  
that is to say the day before the inauguration meeting,  
when he is supposed to speak. In fact in the afternoon  
of this day there will be a preparatory meeting for the  
most important Congressmen.

We are glad to remain  
Yours truly

The Secretary

*Renato Vinciguerra*  
Prof. Renato Vinciguerra





# Challenge

THE MAGAZINE OF ECONOMIC AFFAIRS

475 FIFTH AVENUE, NEW YORK 17, N. Y. MURRAY HILL 5-4971

*answered.  
Sept. 19*

August 11, 1960

Professor Norbert Wiener  
Department of Economics  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Professor Wiener:

As you may recall, I had the privilege of interviewing you last year. The interview, by the way, aroused considerable interest on the part of our readers.

I wonder whether we could interest you in writing an article for us. Beginning with our October issue (which, by the way, will be in a larger Time-size format) we are inaugurating a series of articles dealing with the "cultural lag" that often exists between developing social and economic institutions on the one hand and the public's ideas about these institutions on the other. The theme of the series will be that such a lag has always existed in a dynamic society but that the gap between accepted ideas and social reality has widened as technology has accelerated the rate of economic and social change. In a world where consent societies are increasingly threatened (and where effective resistance depends upon an informed public opinion), this cultural lag, based as it is largely on technical and scientific ignorance, represents a very grave danger. Since most of the nation's decision makers (public and private) are necessarily guided by economic and social precepts learned at least a generation ago (when, at best, they relate to the technology of the generation before that), this gap often seems as inevitable as it is dangerous.

It is in this context that we have assigned, or are in the process of assigning, articles describing such cultural lags in our conceptions of what is public and private (how private, for example are, RAND and how private are government agencies like Fannie May?), our ideas about the corporation and the labor union, our conception



of the market, etc.

The article we should like to have you do is, perhaps, the most basic one of the lot. How is technology (and particularly automation) forcing changes in our ideas concerning productivity and efficiency? For example: most of us think of productivity as an input-output ratio. Our thinking about productivity and efficiency is clearly related to the assembly line-mass production technology of a previous age. In what ways does automation force us to revise this concept? Under what circumstances might the maximization of output per unit of input no longer be the most rational policy in a completely automatized plant where increases in production no longer have any relation to capital inputs (that is, when an additional machine is not the way to increase output)?

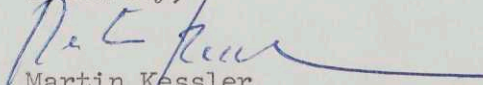
Moreover, as automation releases workers for employment in the service sector, will there be an increasing number of occupations for which the simple rule of "getting more for less" will not apply? A doctor's productivity, for example, does not necessarily increase if his patient load per hour goes up. As an increasing part of the nation's resources is applied to unique products (in the fields of health, education, research, etc.), generally accepted concepts of productivity and efficiency will have to be re-examined. Do you believe that we shall see an increasing emphasis on innovation as the keystone of industrial efficiency? What bearing does this have on our educational needs? What bearing does it have on the status of different groups in society?

These are but some of the rather general questions that come to mind and I am sure that you will be able to think of many others. Economists, as you know, tend to ignore science and technology in a rather shameful fashion in their economic theories. That is why we are so anxious to have a scientist (and especially one who has thought about such problems) write this article for us. I do hope you will be able to say yes.

This is an article which we should like to publish some time early next year. I should, therefore, like to set a deadline for late December but our schedule is sufficiently flexible to permit us to leave this open. We are prepared to pay an honorarium of \$200 for an article of approximately 350 lines at 70 characters--that is, about 16 double spaced typewritten pages.

In any case, I should appreciate learning of your reaction to this as soon as possible.

Sincerely,

  
Martin Kessler  
Senior Editor

MK:ls



Duke University  
DURHAM  
NORTH CAROLINA

DEPARTMENT OF PHILOSOPHY

August 11, 1960

Mr. Norbert Wiener  
Hotell Stockholm  
Norr malmstorg 1  
St ockholm, Sweden

Dear Mr. Wiener:

Thank you for your reply to my letter about the Guggenheim Foundation and its Fellowships. Your letter has been helpful in giving substance and suggesting shape to the article.

I'm not sure just how it will affect the development of the article since I'm not far enough along yet to know just exactly what shape the various sections will take. You may be sure, in any case, that it will be used in accordance with your wishes.

Sincerely yours,

*Bernard Peach*

Bernard Peach

BP:lar

*It had been sent to Sweden from where it went back to Duke and again was forwarded.*

*ERR.*



# THE INSTITUTE OF RADIO ENGINEERS

INCORPORATED

1 EAST 79 STREET  
NEW YORK 21, N.Y.

LEHIGH 5-5100

August 12, 1960

DR. ALFRED N. GOLDSMITH,  
ANNIVERSARY EDITOR

Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 38, Massachusetts

Dear Professor Wiener:

It was with considerable disappointment that I learned from your secretary's letter of June 29 that it would not be possible for you to contribute to the Anniversary Issue of the PROCEEDINGS OF THE IRE. Though I cannot contest the wisdom of your decision, I most heartily regret that such a decision was necessary. Your unique talents will, I assure you, be very much missed.

Sincerely yours,

Alfred N. Goldsmith  
Anniversary Editor

ANG/sf



**ASSOCIATION INTERNATIONALE  
DE CYBERNÉTIQUE**

A. S. B. L.

Secrétariat :  
13, Rue Basse-Marcelle  
**NAMUR (Belgique)**

Tél. 279.83

N° 60/1059

NAMUR, le 12 aout 1960

Monsieur,

J'ai bien reçu votre lettre du 3 aout et le chèque de 200 francs belges représentant le montant de votre cotisation à notre Association.

J'ai pris bonne note de votre participation au 3e Congrès International de Cybernétique de 1961 et du titre de la conférence que vous comptez y présenter.

En ce qui concerne la possibilité de présenter une conférence sur la Cybernétique à Namur au cours de ces prochains mois, je vous saurais gré de bien vouloir me préciser les points suivants:

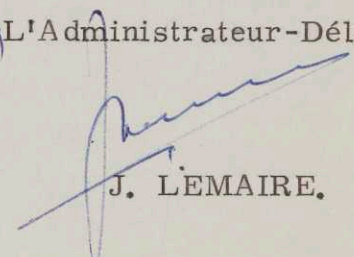
- 1° La durée de votre séjour en Europe.
- 2° Le titre éventuel de votre conférence.

Ces renseignements me sont indispensables pour réaliser les mesures d'organisation nécessaires.

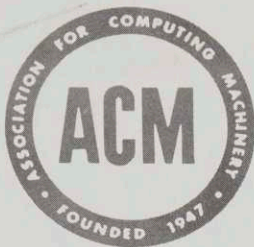
Je vous signale, par ailleurs, que M. Georges R. Boulanger est actuellement en vacances. Aucune décision à ce sujet ne pourra donc être prise avant son retour, prévu au début de septembre.

Je vous remercie vivement de votre collaboration et vous prie de croire, Monsieur, à l'assurance de ma considération très distinguée.

L'Administrateur-Délégué

  
J. LÉMAIRE.

Mister Norbert Wiener  
C/o American Express Co  
COPENHAGUE  
=====



# Computing Reviews

REVIEW JOURNAL OF THE ASSOCIATION FOR COMPUTING MACHINERY

P. O. Box 1184 • Chapel Hill, N. C.

John W. Carr III, *Editor-in-Chief*

Roger P. Hansen, *Editorial Assistant*

August 15, 1960

Mr. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of  
Technology  
Cambridge 38, Massachusetts

Dear Mr. Wiener:

Dr. John Carr, who is presently out of town, has requested that I send the attached paper to you in hope that you will find time to review it for COMPUTING REVIEWS. Dr. Carr particularly wanted you to have this paper since, as he says, your book and work have generated "so much activity in the Soviet Union."

We are also enclosing a reviewer acceptance form which we hope you will be able to fill out and return to us. COMPUTING REVIEWS is off to a good start but we have still only scratched the surface so far as the job that is ahead of us is concerned.

Yours very truly,

*Roger P. Hansen*  
Roger P. Hansen  
Editorial Assistant

RPH:egr



## Review Style Sheet

### COMPUTING REVIEWS

The Review Journal of the Association for Computing Machinery

Box 1184

Chapel Hill, N. C.

Type of Review: Your review can and should be more than a mere summary or synopsis of the review material. You may serve as critic to the extent you feel qualified. Constructive, analytical comment will enhance the information value of CR and increase reader interest.

Style: While no minimum or maximum review length has been established, you are requested to be brief and to the point. Please avoid verbosity and redundancy as much as possible. Short, clear sentences with a minimum of dependent clauses are preferred.

Mathematical Composition: Avoid two-level fractions, using the slant and parenthesis instead as:  $(axb)/(cxd)$ . Use negative exponents to avoid denominators; fractional exponents to avoid radical signs;  $\exp(x)$  for exponentials. Your mathematics may be edited but it will not be altered.

References: Use the following form: publication, volume number, issue number, date, pages. (Sample: Mathematics of Computation, 14, 69 (January 1960) 73-74) For books: title, publisher, city, year, number of pages, and price. When referring to an earlier issue of CR, simply indicate the volume and issue numbers, date, and review number as: Computing Reviews, 1, 1 (February 1960) Rev. 13.

Language titles: Titles of journal articles, papers, proceedings, etc. published in English, German, French and Russian will be printed in the original language with a translation following in parenthesis. All other titles will be printed in English. Books: Titles in original language followed by a translation. Note: If the title of your review material has not been translated, please translate, or correct faulty translation, if necessary.

Review preparation: The editors will accept a review so long as it is readable. It is preferred that reviews be typed double spaced with wide margins. If longhand is necessary, use pencil, not ink. Do not write on back of review sheet but continue on separate sheet if necessary.

Review return: The editors desire to keep CR as timely and up-to-date as possible. It is vital to this objective that reviews be returned not later than the "deadline" specified on the Review Form. The sooner, the better. Normally, a month or more will be allowed to prepare a review, depending on length. The Review Form must be returned with the review.

Material Not reviewed: If the material sent you for review is lacking in information value, is out of date, or is outside your field of interest or experience, please indicate your reason on the Review Form and return the material and the Review Form to this office.

Editorial rights: The editors reserve the right to edit all reviews for grammar, style, reference material, etc. The context of the review will remain unchanged. Publication in the issue specified on the Review Form is probable but not guaranteed. However, publication is assured, within the limits of scientific publication standards.



REVIEW FORM

COMPUTING REVIEWS • The Review Journal of the Association for Computing Machinery • Box 1184, Chapel Hill, N. C.

CR Publication Issue December Deadline for Return October 15

Name of Reviewer Norbert Wiener City Cambridge State (or Country) Mass.

If Journal Article, Paper, Proceeding, etc.:

Author(s), last name first \_\_\_\_\_

Title in Original Language \_\_\_\_\_

Title Translation (if not English) \_\_\_\_\_

Name of Publication \_\_\_\_\_

Vol. No., Issue No., Month and Year, Pages \_\_\_\_\_ Language (if not in English) \_\_\_\_\_

If Book:

Author(s), last name first Kobrinskill, A. E.

Title in Original Language Use of biocurrents for control purposes.

Title Translation (if not English) \_\_\_\_\_

Publisher Morris D. Friedman, Inc. City West Newton, Mass.

Year 1960 No. of Pages 5 Price \_\_\_\_\_ Language (if not in English) \_\_\_\_\_



REASON FOR RETURN OF ASSIGNED MATERIAL UNREVIEWED \_\_\_\_\_

REVIEW FOLLOWS:



HEADQUARTERS  
WRIGHT AIR DEVELOPMENT DIVISION

Wright-Patterson Air Force Base, Ohio

15 August 1960

Dr. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

Dear Dr. Wiener:

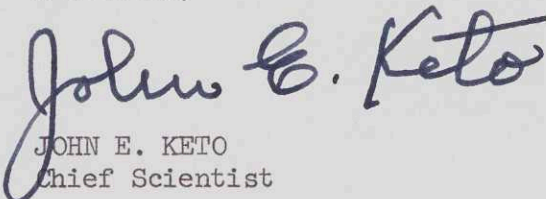
I wish to extend my personal invitation to you to attend the Symposium on Bionics sponsored by the Wright Air Development Division, 13, 14 and 15 September 1960 at the Dayton Biltmore Hotel, Dayton, Ohio.

I believe that we will have three very stimulating days exchanging information and new ideas on the relatively new science of Bionics. Judging from the favorable response to our preliminary announcement, we anticipate an attendance of between 800 and 1000 from industry, research and Government organizations both from the United States and abroad. We extended the symposium to three days, as a result, to include an additional technical session and an "open forum" discussion period.

Lieutenant General Bernard A. Schriever will be our guest speaker at the symposium banquet the evening of 13 September.

After your perusal of the technical agenda inclosed, I trust you will honor us with an early acceptance. If you wish additional information or assistance we will be very happy to oblige.

Sincerely,

  
JOHN E. KETO  
Chief Scientist

- 5 Atch
1. Agenda
2. Info Sheet
3. Reply Form
4. Banquet Reservation
5. Hotel Reply Card

[ans 8/18/60]

AGENDA  
WRIGHT AIR DEVELOPMENT DIVISION SYMPOSIUM  
BIONICS: LIVING PROTOTYPES -- THE KEY TO NEW TECHNOLOGY

13, 14, 15 September 1960  
Dayton Biltmore Hotel, Dayton, Ohio

TUESDAY, 13 SEPTEMBER 1960

0945

GENERAL SESSION I

Chairman: Colonel A. L. Wallace, Jr.  
Director, Advanced Systems Technology  
Wright Air Development Division

Official Welcome: Major General J. R. Holzapple  
Commander  
Wright Air Development Division

Keynote Address: Mr. John E. Keto  
Chief Scientist  
Wright Air Development Division

"Attitudes Toward Intelligent Machines"  
Mr. Paul Armer, Computer Sciences Department, Rand Corporation

"Air Force Research on Living Prototypes"  
Dr. H. E. Savely, Air Force Office of Scientific Research,  
Air Research and Development Command

1130 - 1330 LUNCH

1330

TECHNICAL SESSION I  
"The Life Sciences in Bionics"

Moderator: Dr. Warren S. McCulloch  
Massachusetts Institute of Technology

"The Construction of Reliable Circuits Using Unreliable Neurons"  
Manuel Blum, Massachusetts Institute of Technology

"Reliable Computation with Unreliable Circuitry"  
Ir. Leo A. M. Verbeek, Massachusetts Institute of Technology

RECESS

"Signal and Noise in the Human Pupil Servomechanism"  
Dr. Lawrence Stark, School of Medicine, Yale University

"Brain and Transducer Physiology"  
Dr. Warren S. McCulloch, Massachusetts Institute of Technology

1830 SOCIAL HOUR

1930 SYMPOSIUM BANQUET - Guest Speaker - Lt. General B. A. Schriever,  
Commander, Air Research and Development Command, USAF



WEDNESDAY, 14 SEPTEMBER 1960

0900

TECHNICAL SESSION I I

"Analysis of Biological Principals "

Moderator: Professor Heinz von Forerster, University of Illinois

"Spatial and Temporal Recognition"

Dr. Peter M. Kelly, Aeronutronics, Newport Beach, California

Dr. J. R. Singer, University of California

"Integral Geometry, an Approach to the Problem of Abstraction"

Dr. A. Novikoff, Stanford Research Institute

RECESS

"Two Mathematical Models in Sensory Perception"

W. P. Tanner, University of Michigan

"A Decision Logics for Speech Recognition"

W. C. Dersch, International Business Machines

1200-1330

LUNCH

1330

TECHNICAL SESSION III

"Physical Analogs of Biological Components and Subsystems"

Moderator: Mr. Louis A. de Rosa, International Telephone & Telegraph

"Image Processing and Functional Retina Synthesis"

Dr. E. E. Loebner, RCA Research Laboratories

"Nature's Contribution to Higher-Order Correlation Functions"

Mr. L. A. de Rosa and Dr. L. Vallese, International Telephone & Telegraph

RECESS

"Synthesis of Reliable Automata and Stable Neural Nets"

Dr. K. K. Maitra, RCA Research Laboratories

"What Good are Artificial Neurons?"

Dr. W. A. van Bergeijk and L. D. Harman, Bell Telephone Labs



THURSDAY, 15 SEPTEMBER 1960

0900

SESSION I V

"Mechanical Realization of the Higher Functions of Living Systems"

Moderator: Dr. David O. Ellis, Litton Industries

"Information Processing Languages and Heuristic Programs:  
A New Stage in the Bead Game"

Professor Walter Reitman, Carnegie Institute of Technology

"Realization of Mechanical Pattern Recognition"

Paul Metzelaar, Space Technology Laboratories

"Learning Machines"

R. J. Lee and Lewey O. Gilstrap, Melpar Corporation

RECESS

"Self-Programming Techniques"

R. Ryle and T. Scott, Marc Shiowitz Associates

"Decision Making Processes"

Leon Steinman, Eugene Ross, Dr. James Oliver, Charles Gordon,  
Litton Industries

1200 - 1330

LUNCH

1330

GENERAL SESSION II  
FORUM DISCUSSION

This session will consist of three brief talks, each introducing a thirty to forty minute discussion period. The nature of the session has been to provide an opportunity for stimulating general discussion.

Chairman; Mr. H. V. Noble, Electronic Technology Laboratory,  
Wright Air Development Division

"What Good is the Bionics Approach?"

Dr. Mortimer Taube, Documentation, Inc.

"Where are We Now, and Where are We Going?"

Professor Otto H. Schmitt, University of Minnesota

RECESS

"How Do We Get There?"

Major J. E. Steele, MC, USAF

Aero Space Medical Division, Wright Air Development Division



## INFORMATION SHEET

### BIONICS: LIVING PROTOTYPES -- THE KEY TO NEW TECHNOLOGY

Dayton Biltmore Hotel, Dayton, Ohio

13, 14, 15 September 1960

1. Please complete and return the attached reply form to facilitate registration preparations for the Symposium.
2. Registration: All attendees are asked to register in the Main Lobby of the Dayton Biltmore Hotel from 5:00 to 10:00 p. m. on 12 September 1960. Late registration can be accomplished after 8:00 a. m. on 13, 14, 15 September at the Information Booth outside the Grand Ballroom at the Hotel. All attendees are required to register. Identification badges provided at registration should be worn at all times during the Symposium events.
3. Recess Periods: Coffee or lemonade will be served during each recess period. Tickets will be available at registration.
4. Social Hour: A Social Hour will be held in the Junior Ballroom of the Dayton Biltmore Hotel at 6:30 p. m. on 13 September. Refreshments will be on a C. O. D. basis.
5. Symposium Banquet: The Symposium Banquet is planned in the Grand Ballroom of the Dayton Biltmore Hotel at 7:30 p. m. on 13 September 1960. Lt. General B. A. Schriever, Commander, Air Research and Development Command, USAF, will be the guest speaker. Banquet tickets at \$5.00 per person will be available at registration. Please indicate on the Banquet Reservation Card whether or not you plan to attend.
6. Reservations for Accommodations: Attached for your convenience is a Hotel Reservation Card. Reservations should be mailed directly to the hotel as soon as possible to insure your selection of accommodations. However, feel free to arrange for other accommodations that you may prefer. Military personnel who desire to stay at the VOQ should make advanced reservations with the Symposium Arrangements Committee.
7. Transportation: Transportation will be furnished each day at 8:00 a. m. from the VOQ and Building 68, Area B. The return schedule will be announced and posted in the Hotel Lobby.
8. Publication of Proceedings: A report of the proceedings of the Symposium is scheduled for completion early in December 1960. A copy of the proceedings will be mailed to each attendee. Please check your mailing address at registration.
9. Questions of Immediate Concern: If you have questions concerning the Symposium, please call the Symposium Arrangements Committee, Clearwater 3-7111, ext 28269 or 35214.
10. Attendees may be reached during the Symposium by calling the Symposium Information Desk at Baldwin 3-2161.



REPLY FORM

13, 14, 15 September 1960

Dayton Biltmore Hotel, Dayton, Ohio

SYMPOSIUM ON  
BIONICS: LIVING PROTOTYPES -- THE KEY TO NEW TECHNOLOGY

To be completed and returned not later than 1 September 1960

TO:

Commander

Wright Air Development Division

Attn: WWOOD (Symposium Arrangements Committee)

Wright-Patterson AFB, Ohio

---

Name and Title

Business Affiliation and Complete Mailing Address

REGISTRATION: 5:00 p. m. to 10:00 p. m., Monday, 12 September 1960

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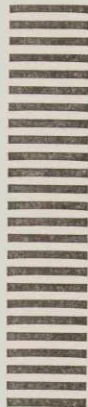
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NAME OF CONVENTION

WWOOD



BIONICS SYMPOSIUM

# BANQUET RESERVATION

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DAYTON BILTMORE

13 September 1960

PLAN TO ATTEND

DO NOT PLAN  
TO ATTEND

NAME

COMPANY

Peter Rutter  
3404 Thornapple Street  
Chevy Chase 15, Maryland

August 15

Dear Norbert,

Two events would induce me to write another letter which is sure to go unanswered: one, your retirement and, two, news of your contribution to the field of foreign affairs. I'll settle for the first pretext and wait awhile for the second. It's difficult for me to imagine that you're retiring. You do not, but I do recall your lament in the first year of our acquaintance starting in the fall of 1937 that you were all through and were waiting only for a rocking chair in an old man's home. This monumental lack of foresight put you immediately in the class of Herbert Hoover, Neville Chamberlain, Senator Borah and other poor prophets of our time. Since then, I have been wary of your Delphic utterances -- except on matters philosophical, scientific, or matters of fact such as the railway gauges of Europe. But apart from this guying, I would like to express my humble and ignorant words of appreciation of what you have done for our society and the dream of a better life. When I am pushed off the stage, I shall settle for 25% as much.

Last month I drove past Cambridge en route from Marion, Mass. to Williamstown, Saratoga, Lake George and Saratoga. The boys did not appreciate my lecture on B. Arnold and Gentleman Johnny Burgoyne, but I think they appreciate the Pells' restoration at Ticonderoga. We proceeded thence southwest to Rome and the thruway and on to Niagara, then home over the Alleghenies. I have now been a year working on the international aspects of nuclear sharing and outer space. Doubtless M. Cambon would not consider this a proper pursuit for a diplomat. I find the field fascinating and offers much to do, even for a tyro such as myself. The word is largely ruled by people who know even less about science than I do. At this point I am inclined to believe that the type of second-rate scientists who all too often populate Government bureaus are the most difficult to deal with. No one is more opinionated, stubborn or rancorous. Moreover, my former respect for the Atomic Energy Commission has largely evaporated. My views about Kistiakowski and Dr. Glennan are not so fixed.

We had a grand time in Accra. There was only one flaw and that a serious one from the professional point of view, an impossible type of Ambassador. Serving under a lower middle class North Carolinian in Ghana is not my idea of fun, but there were compensations sufficient to make me want to return to Africa. I would be happier to return after there is a U.S. African policy.

Enough of this ranting. Please give my best to Ted Martin and Levenson. Also to my old colleagues in the English Dept. if you see them any more. If you happen to come around this bureaucratic hell (or paradise) please ring me up.

And a happy retirement.

Sincerely yours,

*Peter Rutter*



D. STANLEY-JONES, F.R.C.S.

Buckshead,  
Townshend,  
Hayle, Cornwall.

PHONE: LEEDSTOWN 223.

15th August 1960

Dear Professor Wiener,

My book on Kybernetics of Natural Systems was published on 29th July. I hope that a copy will reach you in due course. I did not see the proof of the Jacket, so I was not aware that your name was not being put on the front cover. I would certainly have liked a line "With Preface by Prof. Norbert Wiener" across the dust jacket, as well as the quotation from your Preface on the inside flap.

May I renew my unbounded thanks to you for the supreme help you have given me in launching this book?

Cordially yours,

*D. Stanley-Jones*

IBM

Data Systems Division  
Product Development Laboratory  
P.O. Box 390, Poughkeepsie, New York

*International Business Machines Corporation*

Telephone: GLOBE 4-1000

August 17, 1960

Please Address Reply To:  
E. J. McCluskey, Jr.  
Dept. 540, Bldg. 703

Professor N. Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

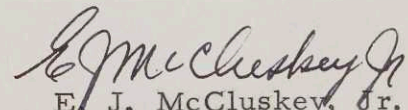
Dear Professor Wiener:

I am writing to ask if you would be willing to prepare a review of the following book for the IRE Transactions on Electronic Computers:

Ross Ashby's "Design for a Brain."

The Electronic Computer Transactions includes a new section which contains critical, signed reviews of current computer literature. The normal length of a review is approximately 600 words, however, if you find that a longer review is necessary, this normal length may be exceeded.

I would like to have the review by November 1 for inclusion in the March 1961 issue. I have a copy of this book and will send it if you are willing to undertake the review.

  
E. J. McCluskey, Jr.  
Review Editor  
IRE Transactions on  
Electronic Computers

EJM:jc



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August 17, 1960

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Dear Miss Hilton:

We are quite willing to grant you permission to reprint the material listed below, provided:

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In respect to this method of giving credit, however, we are willing to accept the standard editorial practices of other publishers as long as the essential items above are included.

This borrowed material will be used in a book tentatively entitled Logic - and Computing Machines.

Sincerely yours,

J. A. McNeish  
PRODUCTION DIVISION

JAM:gl

Wiener, Norbert - CYBERNETICS - Pages 10 - 11: From: "Thus the following requirements were suggested .... " to " ... and then be immediately available for the storage of new material."

Your credit line should also note the fact that this book was published jointly by the Technology Press of Massachusetts Institute of Technology and John Wiley & Sons, Inc.

*Saturday Review*

25 West 45th Street  
New York 36, N. Y.

Rochelle Girson  
Book Review Editor

August 18, 1960

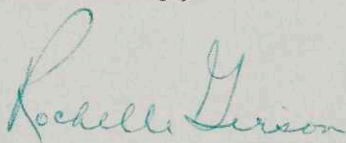
Dear Dr. Wiener:

Would you be interested in reviewing for us "Sir Isaac Newton," by H.D. Anthony? We should like about 800 words on the book, preferably about two weeks after you have received it.

I'd be most grateful if you would wire me pressrate collect advising whether you can accept the assignment.

Sincerely,

RG:ss



Dr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts



**ASSOCIATION INTERNATIONALE  
DE CYBERNETIQUE**

A. S. B. L.

Secrétariat :  
13, Rue Basse-Marcelle  
**NAMUR (Belgique)**

Tél. 279.83

N° 60/1094

NAMUR, le August 18 1960

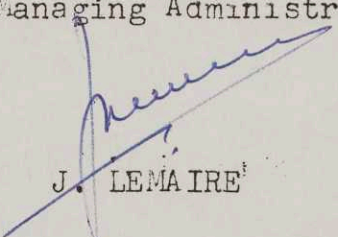
Dear Sir,

I beg to acknowledge receipt of your membership fee for 1960 to the International Association for Cybernetics.

I warmly thank you, therefore and have the pleasure to send you, hereby, your member's card.

Yours faithfully

The Managing Administrator



J. LEMAIRE

Mister Norbert Wiener  
53, Cedar Road  
BELMONT  
=====

August 18, 1960

Mr. John E. Keto  
Wright Air Development Division  
Wright-Patterson Air Force Base  
Ohio

Dear Mr. Keto:

This is to acknowledge receipt of your recent communication to Professor Norbert Wiener.

Professor Wiener will not be able to accept your invitation as he will be abroad until the spring semester of 1961.

Sincerely yours,

Betty Ann Sargent  
Secretary

BAS



# The Technology Press



MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
CAMBRIDGE 39, MASSACHUSETTS

August 19, 1960

Professor Norbert Wiener  
c/o Max Richter  
Kandlstrasse 6  
Aalen/Württemberg  
Germany

Dear Norbert:

The enclosed statement shows sales of your three books for the fiscal year ending June 30, 1960. I have sent a check for \$308.37 to be deposited in your account in the Cambridge Trust Company.

Nonlinear Problems is very close to the royalty-paying point, but it hasn't quite got there yet. The trouble was that we made it quite a luxurious book, and it is taking quite a while to recover the costs. But we are confident that the book is going to go right on selling for a long time, and I am sure you will not be the loser in the long run.

Tobey and the family have now settled down on Bearcamp Road, and it is good to have them for neighbors. Tobey did quite a lot of good editing on your supplement to the second edition. Things are progressing well on that front. Dr. Barlow is going to make a few minor changes before we send the new manuscript to the printer, which will be in September, since the printers are so fully booked in England, where the type will be set.

I hope that you are having a pleasant and profitable tour. Please give our best to Mrs. Wiener.

Very truly yours,

*Lynwood Bryant*

Lynwood Bryant  
Director

LB:SS



# The Technology Press



MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
CAMBRIDGE 39, MASSACHUSETTS

August 19, 1960

## Sales and Royalty Reports for the Fiscal Year Ending June 30, 1960

<u>Sales Report</u>	<u>1st half</u>	<u>2nd half</u>	<u>Full Year</u>	<u>Total since Publication</u>
Cybernetics	463	535	998	33,687
Stationary Time Series	225	186	411	5,264
Nonlinear Problems	528	242	770	2,757

### Royalty Statement

#### Cybernetics

747 domestic at \$.525.....\$392.18

251 foreign at \$.2625..... 65.89

\$458.07

#### Payable to Herman et Cie

998 at \$.15..... 149.70

\$308.37





Please return letter  
when convenient.

DEPARTAMENTO ELECTROENCEFALOGRAFIA

Dr. J. Vila Badó  
Dr. J. M. Samsó Dies

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Herráiz, 2 - Teléfono 50 48 00

BARCELONA - 17

Barcelona 22 Agosto 1960

Prof. Dr. Norbert Wiener  
Massachussets

Apreciado profesor:

Hace unos años, y por mediación del Dr. Vila Badó, compañero mío de trabajo, tuve ocasión de dirigirme a Vd. para saludarle y expresarle nuestro aprecio y admiración, respecto a su personalidad y obra, en nombre mío y de nuestro modesto grupo de la Asociación de Cibernetistas de esta Ciudad.

En aquella fecha nos atrevimos a solicitarle en caso de que en sus futuros viajes proyectase su paso por España, pensara que en Barcelona, podía contar con nuestra amistad que se vería muy honrada con su presencia.

Con ocasión del anuncio de su fundamental participación en el primer Symposium Internacional de Medicina Cibernetica, que se celebrará en Nápoles a primeros de Octubre próximo, me tomo la libertad de recordarle nuestro cordial ofrecimiento en caso de tener proyectado su paso por España, o de haber la posibilidad de

que tal contingencia, fuera de su consideracion, en cuyo caso le agradecería me comunicara su decisión, para organizar su recibimiento.

Nuestro deseo es ofrecerle cuanto pueda serle util en su paso y estancia en nuestra ciudad, y aunque no nos atrevemos a pedirselo, ponemos a su conocimiento que nos llegaría de alegría y satisfacción oír, si no fuese de su desagrado, una lección sobre el tema que Vd. tuviera el gusto de escojer.

Su personalidad científica es muy conocida en nuestra ciudad, y nuestro mas ferviente deseo sería poderle constatar nuestra consideracion y estima personalmente, ya que para nosotros Vd. constituye un descubridor fundamental en la ciencia contemporánea y del porvenir.

Reciba, apreciado profesor, con nuestra esperanza, nuestra amistad y nuestra mas cordial salutación.

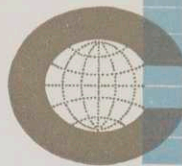
Su afmo. s.s.

*Pauco*



INTERNATIONAL DESIGN CONFERENCE IN ASPEN

179 North Michigan Avenue  
Chicago 1, Illinois



~~179 East Lake Street~~  
~~Chicago 1, Illinois~~  
~~ST 402 1888~~

August 22, 1960

Mrs. E. M. Ritter  
Office of Dr. Norbert Wiener  
Mass. Institute of Technology  
Cambridge 39, Massachusetts

Dear Mrs. Ritter:

Please forgive my tardiness in answering your letter of July 20th. In the near future, I will have the tentative program outlined and some material ready on the 1961 Design Conference.

In the meantime, I will briefly answer some of the questions raised in your letter. You mentioned that Doctor Wiener will be abroad until February or March. I do not believe that this would create any difficulties. One of the things that our speakers prepare is a paper of moderate length (about 2,000 words) which is printed beforehand and distributed to the Conferees upon registration. The conferees are expected to read these papers; also, copies of the speakers' papers are distributed well in advance to other speakers so that they can be aware of their viewpoints beforehand.

The structure of the Conference is usually a panel discussion with three or four speakers in the large tent amphitheatre, which is attended by all the conferees. This is followed by short seminar meetings where conferees and speakers have opportunity to discuss questions intimately. The speakers' active participation thus consists of about one day during the full week's conference; however, we are anxious to have them feel inclined to actively participate during the full week's conference in all the sessions.

It is the practice of the International Design Conference to pay to its speakers a sum which is equivalent to first class round trip transportation, and housing and living expenses during the Conference.

INTERNATIONAL DESIGN CONFERENCE IN ASPEN



~~6 East Lake Street~~  
~~Chicago 1, Illinois~~  
~~674-2488~~

I hope that these notes answer the questions that you had. I can only say that I and my committee are most anxious for Doctor Wiener to be one of our esteemed speakers. We will do all that we can to make his stay in Aspen a pleasant one as well as stimulating for himself and the Conference.

I look forward to hearing from you. If there are any questions, please do not hesitate to write.

Sincerely,

Herbert Pinzke,  
1961 Program Chairman

HP/f



A PROPOSAL

In a time when almost everyone in the world is calling the Westerners, particularly Americans of the United States, the most materialistic and money-eyed of people, it might be good to do something so challengingly idealistic in the purely spiritual sphere that all these detractors would have to back up and think again. Here is one proposal:

Why not make Ellis Island into a World Sanctuary for all the world's religions? Why not preserve this spot that has meant so much to so many hopeful people and offer it as a sacred island to all the religions of the world?

Here are ten aspects of this concept:

1. A Museum of Ellis Island as an immigration depot, preserving its history as a gateway to some eighteen million people, into a life free from physical and spiritual tyranny.
2. World Center for religious learning where students and practicing religionists from all religious views can have full access to teachers and literature from all other religions in an atmosphere of mutual respect and reverence for the good that exists in each view.
3. A program of regular briefing of the world's religious leaders on scientific developments concerning atomic matters, the communication efforts with other planets and more immediately applicable knowledge. (The eventual reception of intelligent communication from other universes will present so profound a problem for the fundamental teachings of many faiths that dire loss of face may follow -- this must be avoided for the general good of us all. Our various religions are among our most precious inheritances, and they should be protected against disintegration in the on-rush of machine-based living).
4. Community of shrines. By constructing some sixteen shrines, each in the best style of its parent religion, Ellis Island can be developed into a cultural grouping that can become one of the world's most superb architectural experiences. It is only an arrow-shot away from the near-sacred Statue of Liberty.
5. Library and museum of all the religious source writings from all the known religions, both historical and living, and facsimiles of significant artifacts. Tours will be of especial interest to the half-million visitors each year, half of whom are students.
6. A plan for operating in direct liaison with the UN when certain kinds of problems arise.
7. Hostel accommodation for pilgrims, visitors and students.
8. A regular gathering of the world's religious leaders for discussion of mutual problems, aspirations and solutions, held on the highest diplomatic plane.
9. A continuing program of translation from the originals of significant writings into the five UN languages, and a quarterly publication in these languages of a non-edited survey of religious trends the world over.
10. A program to develop religious scholarships outside the regular academic systems, for the use of active religionists not seeking academic credit.

Of course, behind this entire concept is the idea that each religion that mankind has developed has given us a different view of the same great Force that seems to pervade existence, time and space as we are able to know it. The physical principles that science has defined are directly related to the principles that the many prophets have explained in somewhat different terms, and all of these are part and parcel with the very great Forces that we are now discovering to be operative throughout all the universes we can know of. It is our common problem to sift out a harmonious central concept that will be adequate to the enormous spiritual expectations of awakening minds all over the world for many coming generations without at the same time losing any part of the enriching substance of the many different religions that we have inherited from the many generations who have passed before us.

Ways of financing have been fully examined and are practicable. Interested people are welcome to discuss this further. Write: Patrick Whitaker, 1153 3rd Ave., New York 21, N. Y.



6 Alton Court  
Brookline, Mass.  
August 22, 1960

Dear Professor Wiener,

You were right about the difficulty of setting up a computer program. The job is taking much longer than I thought it would, and I have no definite results yet. But I expect to be "in production" soon. The brothers Yildiz, John Kotelly, and myself are, of course, working on the theory.

The enclosed clipping (I will send you the full reports when I obtain them) will be, I think I may say, of profound interest to you, if you are not already aware of the work it describes. Lieutenant Colonel Bach has almost fortuitously hit upon just the phenomenon you predicted: a microwave frequency-specific growth effect in living cells! But it seems that he is unaware of the significance of his results.

You once told me to feel free to discuss any of your scientific ideas with anyone. But in this case I now hesitate. ~~I should like~~ I want to be sure that what I have been calling ~~the~~ "the Wiener secret-of-life hypothesis" becomes permanently associated with your name; and your revision of Cybernetics, which contains your speculations on the self-replication of DNA and RNA, is not scheduled to be published until next January.

However, I can hardly contain the excitement engendered in me by the enclosed article. Now that work has been done which may turn out to be the confirmation of your hypothesis, I believe it is a matter of urgency (I am thinking now particularly of cancer) that



the Tri-Service Microwave Conference and the rest of the scientific world be aware of your ideas.

But I demur, trusting that you will take or suggest the proper course of action.

Sincerely yours,  
Chuck Robinson  
(the Jewish boy)

P. S. I spoke today to a gentleman in the Technology Press office who informed me that present plans call for printing (or setting?) your revision to Cybernetics in England, but that, if you wished, the work could be done here and the book published in September. Please forgive me if ~~he~~ I have been too presumptuous.



New York Times  
8/19/60

## MICROWAVE ROLE IN HUMANS CITED

Molecular Change Reported  
to Scientific Conference  
—Research Value Seen

By JOHN A. OSMUNDSEN

New and possibly important biological effects of radio and radar waves were reported at a three-day scientific meeting that concluded here yesterday.

One scientist told of producing "a profound molecular change" in human gamma globulin with specific wave lengths of radio waves in the high frequency to very high frequency, or VHF, range.

Alterations so created in the molecules that constitute an important part of the body's defense apparatus were accompanied by at least a fourfold increase in their biological activity, the scientist said.

"The changes can be produced under widely varying conditions of voltage, power, pulse width and pulse repetition rate, provided the frequency is suitable," according to Lieut. Col. Sven A. Bach of the Army Medical Research Laboratory in Fort Knox, Ky.

This is believed to be the first report of a proven frequency-specific effect of radio waves on human chemistry. The finding is expected to have value as a research tool and may ultimately have clinical applications if the effects can be duplicated in living subjects.

### Dog Experiments Cited

Another scientist reported findings indicating that there might be an interaction in living things between microwave radiation in the radar range and ionizing radiation, such as X-rays.

This was suggested by experiments conducted at the University of Rochester in which dogs that had received large doses of X-rays were more sensitive to the heating effects of microwaves from a radar than to increased environmental heating to the same temperature.

That finding might also suggest the existence of a new non-heating effect of microwave exposure, Dr. Joe W. Howland, who directed the work remarked.

He elaborated on these results after delivering his report at the Fourth Annual Tri-Service Microwave Conference that was held in the auditorium of the New York University Medical Center.

Animals that had been chronically treated with microwaves over long periods have shown an increased capacity to survive doses of X-rays that are lethal to 80 per cent of those exposed, Dr. Howland said.

### Vascular System Affected

This may be a result, he said, of an accommodation to physiological stress produced by microwave exposure or of the "exercising" that microwave radiation gives the animals' vascular system, which is a target of X-ray attack.

Although these two reports suggested possibly salutary effects of microwave radiation on living things, the series of conferences was started in 1957 in an attempt to collect information that would define its biological hazard.

Potential hazard from microwave radiation is believed to exist mostly on the heat the waves can produce in a person's body. Personnel of radar installations are constantly subject to exposure to this radiation, but no serious accidents have yet occurred, according to Col. George M. Knauf who directs the tri-service program.

Most concern has been directed to the possible hazard of microwave radiation to the lenses of the eyes and genital region because circulation in those areas is not adequate to dissipate heat that could build up dangerously before the victim was aware of being exposed.

One study of this problem disclosed the first indication of primary chemical changes brought about in the eye by microwave radiation.

### Hazards Are Assessed

Dr. Lorenzo O. Merola of Tufts University told the meeting of finding that the concentration of two chemicals, ascorbic acid and glutathione, drops in the eye soon after exposure to microwaves.

Another study being conducted by Dr. Milton Zaret and Dr. Merrill Eisenbud of New York University is aimed assessing the hazard of developing cataracts and other eye disorders among persons who work with microwaves. Preliminary findings suggest that the hazard is not great.

Dr. Bach's report appeared to cause more comment at the conference than almost any other, for the effect of radio frequencies on human gamma globulin in the test tube were clearly not a result of heating.

It was suggested by Dr. Bach that the increased biological activity of the molecules as measured against a rabbit serum sensitized to them might have resulted from an unfolding of their structure, thus exposing more active spots.

Dr. Joseph H. Vogelmann of the Capehart Corporation went on to speculate that the effect was caused by a kind of resonance between the frequency of the radio waves and the shape of the molecule. This would be not unlike the resonance shown by striking a spring with a hammer at just the right frequency to get the most bounce.

Such an action, he said, could do the damage that apparently was done to Dr. Bach's gamma globulin molecules.

### Noted French Naturalist

Jean Baptiste Audebert, French artist and naturalist who died in 1800, originated the use of gold-leaf to show the plumage of birds.

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# pistol-packing, cigar-smoking mama:

To Annie's horror and surprise, the seemingly-friendly Spider has suddenly revealed herself to have all the warmth of her namesake. But Annie continues to play the double game, acting innocent and trusting, although she now knows Spider has killed one man and would not hesitate to kill her too. How can Annie escape? Read *Orphan Annie*, tomorrow in the DAILY NEWS.

*Weeknights-Don't Miss...*

## "WORLD NEWS"

*with Kevin Kennedy*

**7 PM • WPIX • CH. 11**

*presented by—*

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T. PATI

Prof. Norbert Wiener,  
Massachusetts Institute of  
Technology  
U.S.A.

30, Lowther Road,  
Allahabad-2  
INDIA

Reverend Professor,

Please forgive me if I have disturbed you, and please permit me to take the liberty of requesting you for an off-print of the following paper of yours:

The quadratic variation of a function and its Fourier Coefficients,  
Journ. of Math. and Physics, vol. 3 (1924), pp.  
73-94.

I am nowadays trying to formulate the theory of generalized absolute Riesz summability by the combination of the classical theory of this subject and the concept of  $\alpha$ -variation, introduced by you and worked upon by Young, Gehring and others. By requiring that

$R_{\lambda}^{\alpha}(w) = A_{\lambda}^{\alpha}(w)/w^{\alpha} \in W_{\alpha}$ ,  
the class of functions with bounded  $\alpha$ -variation in the sense in which you have defined it, I have introduced the





BY AIR MAIL

हवाई पत्र

AEROGRAMME

NO ENCLOSURES  
ALLOWED

Professor Norbert Wiener,  
Massachusetts Institute of  
Technology,  
U. S. A.

CGPR - 66

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Second fold here

INDIA

ALLAHABAD-2  
30, LOWTHER ROAD,

T. PATI

Sender's name and address: —

To open cut here

First fold here

definition of summability  $|RW, \lambda_n, \kappa; \alpha|$ .  
 $R \equiv Riesz$ ;  $W \equiv Wiener$ .  $\lambda_n$ : the type;  $\kappa$ : the order;  
 $\alpha$ : the index. For  $\alpha=1$ , this method is the same as  
 $|R, \lambda_n, \kappa|$ , while for  $\alpha=0$  it reduces to Riesz-  
boundedness of type  $\lambda_n$  and order  $\kappa$ . The potentialities  
of this new field are considerable. The only difficulty  
is that summability  $(R, \lambda_n, \kappa)$ , which requires:  
 $R_{\lambda}^{\kappa}(a) \rightarrow l$ , as  $a \rightarrow \infty$ ,  
could not be encompassed prima facie.

My wife Kshama joins me in extending  
to you our deepest regards. I am eager to work  
with you and learn at your feet. Can there be any  
opportunity?  
Yours sincerely  
T. Pati



# Medical Economics

NATIONAL BUSINESS MAGAZINE FOR PHYSICIANS · ORADELL, NEW JERSEY · COLFAX 2-3030

August 24, 1960

*answered;  
Sept. 19*

Dr. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Dr. Wiener:

Recently Dr. Lee B. Lusted of the University of Rochester School of Medicine wrote us at MEDICAL ECONOMICS suggesting that we do an article on the extent and future of automation in hospital and medical care.

To do a reasonably complete round-up on this topic, we are anxious to get information from as many knowledgeable sources as possible. Your own comments would be particularly valued. Would you **take just a few minutes** to comment on the following broad questions? Please feel free to comment as extensively as you wish.

1. Where do we stand now as far as automation in hospital and medical care is concerned? How far has it spread, and what are some processes that have been automated? (We'd appreciate any specific cases you can cite.)
2. What do you feel is the future of automation in hospital and medical care? What processes lend themselves most readily to automation?
3. What are the probable effects of automation on the cost of medical care, the patient-doctor relationship, etc.
4. What can automation do in the physician's office?
5. How will the physician's work for his patients be affected by automation?



August 24, 1960

We and our 170,000 doctor-readers will greatly appreciate learning what you have to say on the subject of automation in medicine.

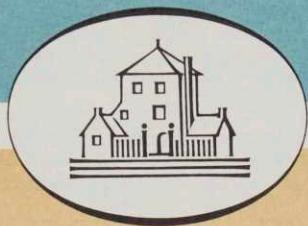
May we hear from you shortly? I've enclosed a stamped return envelope for your convenience.

Sincerely,

A handwritten signature in cursive script that reads "Jane A. Blood".

Jane A. Blood  
Assistant Editor

JAB:tan  
Enc: re



# RANDOM HOUSE INC.

457 MADISON AVENUE, NEW YORK 22, N.Y. TELEPHONE PLaza 1-2600

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Jason Epstein, EDITOR

August 29, 1960

Mr. Norbert Wiener  
c/o Mr. Georg Richter  
Kandlstr. 6  
Aalen 1  
Wurttemberg, Germany

Dear Norbert:

Let me try to explain Random House's accounting to you. We ~~sold~~<sup>+</sup> 3,205 copies in bulk to Merrill~~Fox~~<sup>+</sup>, and they in turn made the book available to radio stations throughout the country to distribute as gifts to their clients and patrons. The arrangement is in the nature of a book club, and Mr. Fox selects approximately ten books a year for his program. We sell him the books at \$1 a copy, which allows us a small profit; the author's royalties are ten per cent of the net receipts. The total sales to date of The Tempter, including the sale to Merrill-Fox, are 6,870 copies. The book continues to sell at ~~the~~ rate of 300 to 500 copies a year.

I understand your apprehensions concerning the project that I suggested to you in my letter of June 17. It is enough to know that you do intend to write more in this direction when the time is right and you are in the mood. I fully understand your position and so will Isaac Asimov. I'll be seeing Asimov in September and will tell him your feelings. I hope that he will be able to arrange his schedule so that you and he will be able to work together on the novel. He is, as you know, not only a competent writer but a very charming person, and approaches his collaboration with you with great modesty.

I do hope that your trip continues to be a great success. In the meantime, we both look forward to seeing you both after the first of the year.

Yours,



August 29, 1960

Dr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge 39, Mass.

Dear Dr. Wiener:

Several years ago a former associate of mine, Mr. Richard Schulz of Armour Research Foundation, visited you to get your ideas on scientific fields where important progress is being made, on possibilities for scientific breakthroughs, and on sciences where a greater rate of research effort would appear to be profitable.

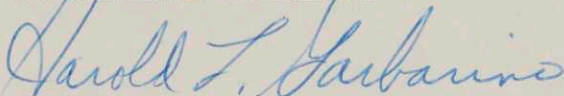
It has been a long time since I read the report (since I participated in the program), but I remember that most of your remarks were related to your work on noise phenomena and random processes. From what I recall about your remarks, this is certainly an area for investigation which could lead to interesting and useful results.

I am writing you at this time to invite you to author an article about random phenomena or some other related subject of your choosing for publication in Industrial Research magazine. In case you haven't seen the magazine, I'm enclosing a recent issue.

Briefly, Industrial Research is an interdisciplinary magazine read by 41,000 scientists, engineers and technical management people working in many different technical fields. We think we have a distinguished audience that would have an appreciation for the significance of your work. Hoping that you will agree to join our ranks of authors, I am also enclosing a copy of our author's article guide which helps describe our editorial goals. I'm looking forward to hearing from you.

Sincerely yours,

INDUSTRIAL RESEARCH



Harold L. Garbarino  
technical director

RESEARCH CORPORATION

DIVISION OF GRANTS  
405 LEXINGTON AVENUE  
NEW YORK 17

SAM C. SMITH  
ASSOCIATE DIRECTOR  
BIOLOGICAL SCIENCES

August 29, 1960

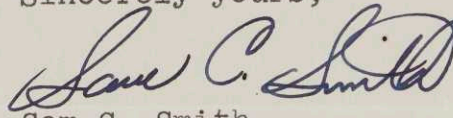
Mrs. Eva-Maria Ritter  
Secretary to Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

Dear Mrs. Ritter:

Please excuse this delayed reply to your letter of July 28 which has been occasioned by the vacation period.

Thank you for letting us know that Professor Wiener is out of the country and will, therefore, be unable to serve on the Research Corporation Award Jury for 1960. Perhaps we shall be fortunate enough to have the benefit of his services in some future year.

Sincerely yours,



Sam C. Smith

SCS:vb



The Technology Press  
Massachusetts Institute  
of Technology  
August 29, 1960

Professor Norbert Wiener  
c/o Max Richter  
Kandlestrasse 6  
Aalen/Württemberg  
Germany

Dear Professor Wiener:

We are anticipating a reprinting of 1,000 copies of your book, Extrapolation, Interpolation and Smoothing of Stationary Time Series. However, before we proceed with the production of the reprinting, we would appreciate your letting us know of any corrections in the text which should be made. Would you let us know as soon as convenient whether there are any corrections and what they are?

Very truly yours,

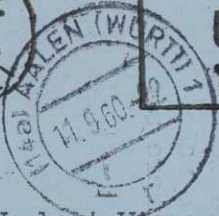
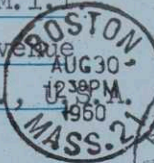
*Sarajane Spotts*

Sarajane Spotts  
Business Manager



*answered,  
no corrections possible  
before return to U.S.  
go ahead.  
consult Lee  
and Raisbute*

Technology Press, M.I.T.  
44 Massachusetts Avenue  
Cambridge 39, Mass.,



VISIT  
U.S.A.  
1960

12. SEPTEMBER 1960

Professor Norbert Wiener  
~~e/o Max Richter~~  
~~Kendlestrasse 6~~  
~~Aalen/Wurtemberg~~  
Germany

(14a) Stuttgart  
American Express  
Company

FIRST FOLD

SECOND FOLD

AIR LETTER • AÉROGRAMME • PAR AVION

Faint, mirrored text from the reverse side of the envelope, including the name 'Norbert Wiener' and the address '44 Massachusetts Avenue, Cambridge 39, Mass.'.



Sxt farm letter  
September 2, 1960

# Columbia University Teachers College Alumni Association

## OFFICERS

August 30, 1960

President  
Mr. Raymond C. Lewis

Prof. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts.

Vice-President: Program  
Dr. Edward H. Goldstein

Dear Prof. Wiener,

Vice-President: Membership  
Mr. Bernard F. Sewell

Vice-President: Projects  
Mrs. L. Franklin Ramirez

Secretary-Treasurer  
Miss Sojourner E. Jackson

Our Greater Washington Area Alumni Association is having as the subject of its fall meeting, scheduled for October 29th, 1960, "Education's Greatest Need Today----Tomorrow". A Symposium type program is planned. Other speakers being invited include Miss Bertha Adkins, The Undersecretary of Education, the Superintendent of the Baltimore schools' system, the Chief of the Department of Higher Education of the NEA and the President-elect of the Adult Education Association, USA.

## Area Representatives

Baltimore, Maryland  
Miss Doris Stevens

There are several hundred TC Alumni in this northern Virginia to Baltimore area. Between one and two hundred are expected at the fall meeting. They meet with two objectives: fellowship and "professional nutrition". The Symposium subject has been selected with the latter in mind.

Northern Virginia  
Miss Ruth C. Andrew

Southern Maryland  
Mr. William H. Neal

Previous meetings have included discussions on the subjects: "Progressive Education, what's happened to it?", "Educational TV", "Spiritual and Moral Values in our Secondary Schools". This group of subjects has evoked anything but stereotyped expressions on the part of both the speakers and the audiences. Cliches have been noticeably absent. The thinking and discussions have been creative, imaginative and interest compelling. It is safe to anticipate you will have an audience composed of people in earnest search of fresh thinking and avoidance of "the usual", unless presented in an unusual way.

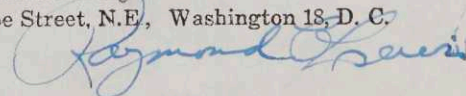
Washington, D. C.  
Mrs. David A. Kosh  
Mr. Samuel R. Shumaker

A "reactors panel" composed of a juvenile court judge, a parent knowledgeable about TV, another about "teaching machines" and a PTA President will function as "discussion starters".

We should be honored to have you as one of our speakers and hope your schedule will permit our benefiting from a discussion on cybernetics under your leadership. We regret our inability to offer an honorarium, but, of course, you would be our guest at the buffet, 6:30 PM, preceeding the meeting. If you are able to accept this invitation I shall be happy to provide you with more details. If you cannot accept, would you be willing to suggest the name of someone in the Washington area we might approach?

Sincerely

Kindly address all communications to the Secretary, Miss S.E. Jackson, 2415 Monroe Street, N.E., Washington 18, D. C.





CASILLA 1557  
SANTIAGO DE CHILE

Santiago, August 31, 1960.

Professor Norbert Wiener,  
Massachusetts Institute of Technology,  
Boston, Massachusetts.

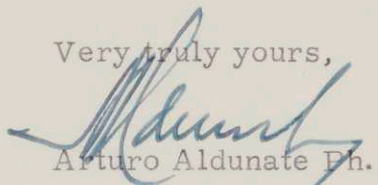
Dear Professor Wiener:

On March 29th, 1960 I took the  
liberty of writing to you as per attached copy.

As I have not received any reply  
from you, I assume the letter may have gone astray.

Hoping that I may have an answer  
from you, I remain,

Very truly yours,



Arturo Aldunate Ph.

[ans 9/14/60]



# SPRINGER-VERLAG

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*Geschäftsinhaber:* FERDINAND SPRINGER, *Dr. med. h. c. Dr. phil. h. c.*  
JULIUS SPRINGER, *Dr. Ing. e. h.* · TUNJES LANGE, *Dr. med. h. c.* · HEINZ GÖTZE, *Dr. phil.*

Dr. Heinz Götze

(17a) HEIDELBERG, den 31. August 1960  
Neuenheimer Landstraße 28-30  
Telefon 279 01

Gtz/Lg

Herrn

Professor Dr. N. Wiener

Massachusetts Institute of Technology  
Department of Mathematics

Cambridge 39, Mass. / USA

Sehr geehrter Herr Professor Wiener!

Ich bestätige den Empfang Ihres Briefes aus Kopenhagen vom 26. August 1960 und danke für Ihr Interesse und die guten Wünsche für unsere neue Zeitschrift.

Wir würden uns natürlich freuen, gelegentlich einen Beitrag von Ihnen zu erhalten.

Mit den besten Empfehlungen  
Ihr sehr ergebener

DB