319

CORRESPONDENCE Nov., 1-20, 1962

N. WIENER - MC 22

[ca Nov., 1962]

Eyrolles
ÉDITEUR
61, BOULEVARD ST-GERMAIN - PARIS (V) - TEL. ODÉON 34-63 - C. C. PARIS 1524-75
R. C. Seine 57 B 5640

LIBRAIRIE
DE L'ENSEIGNEMENT
TECHNIQUE

to thank

Monsieur,

Nous vous adressons, en hommage, un exemplaire de l'ouvrage

BLANC LAPIERRE : LA MATHEMATIQUE A L'USAGE DU PHYSICIEN
ET DE L'INGENIEUR - Tome I

et sommes heureux de l'occasion qui nous est offerte de contribuer à mieux faire connaître la littérature technique française.

Le sujet de cet ouvrage est de nature, pensons-nous, à vous intéresser tout particulièrement. De plus, le problème envisagé est traité de façon à la fois originale et complète. Mettant en lumière la haute valeur de nos techniciens et la qualité de nos livres techniques, il contribue encore à accroître le prestige de la France à l'Etranger.

Nous souhaitons que l'intérêt que vous aurez porté à cet ouvrage soit tel que vous jugiez bon de nous faire connaître ou vos critiques ou votre approbation. Et si vous étiez amené à en faire un compte rendu dans une revue de votre spécialité, nous vous serions très reconnaissants de nous adresser un exemplaire de votre article.

Nous vous remercions à l'avance de bien vouloir ainsi associer vos efforts aux nôtres dans le but de développer toujours davantage les échanges culturels entre votre Pays et le nôtre et nous vous prions de croire, Monsieur, à l'assurance de notre considération très distinguée.

Le Directeur

F. RETAILLIAU

Wainwright

[ca Nov., 1962]

copy

M. T. Retaillian
Directeur
EYROLLES
61, Blvd. St. Germain
Paris V, France

Monsieur,

À cause de l'absence du Monsieur le Professeur, il est à mêmé de vous remercier pour l'exemplaire de l'ouvrage La Mathematique à l'usage du Physicien ....

L'exemplaire est vraiment magnifique, et je suis sure que Professeur Weiss le trouvera très intéressant quand il aura la chance de le voir au retour de l'Italie où il sera jusque le mois de janvier 1963.

Veuillez agréer, Monsieur, l'expression de notre respectueuse considération.

E. R. Ritter (Mme)
Secrétaire

The American Committee

for the

Weizmann Institute of Science

invites you to the

Annual Weizmann Reception and Dinner

and to the Première Dramatic Presentation of

"Vision and Synthesis"

on Thursday, the thirteenth of December

nineteen hundred and sixty-two

at half after six in the evening

at the Americana of New York

811 Seventh Avenue, New York

SUBSCRIPTION $250.00 PER PERSON
PROCEEDS TO THE WEIZMANN INSTITUTE OF SCIENCE

BLACK TIE
R. S. V. P.

The American-Hungarian Medical Association

extends to you a cordial invitation

to attend the

Ignaz Semmelweis Meeting

to be held at the

New York Academy of Medicine

Room 20

2 East 103rd Street, New York City

on Friday, November 9th, 1962

at 8:30 p.m.

The meeting will be preceded by a reception and subscription dinner in the President's Gallery of the New York Academy of Medicine at 6:30 P.M.

PAST LECTURERS AND RECIPIENTS OF SEMMELWEIS MEDAL

Albert Szent-Gyorgyi	1951
Stephen Rothman	1953
Bela Schick	1954
Hans Selye	1955
Paul György	1956
Franz Alexander	1957
Max Thorek	1958
Richard C. de Bodo	1959
Laszlo Zechmeister	1960
Paul Hoch	1961

PROGRAM

1. President's Address

2. "Semmelweis the Rebel."
   Max Goldzieher, M.D.

3. Introduction of Dr. Jacob Furth
   Magda Dacso Rona, M.D., Director of Laboratories, Morrisania Hospital

4. Semmelweis Lecture
   "Lessons from Studies of Physiology and Neoplasis of the Mammary Gland."
   Jacob Furth, M.D., Professor of Pathology, Columbia University, College of Physicians and Surgeons

5. Presentation of Semmelweis Medal and Scroll to Dr. Jacob Furth

6. Nomination of Officers for 1963.

Paul A. Radnay, M.D.
Corr. Secretary

Andrew K. Bernath, M.D.
President

IBM RESEARCH

nich
ntly
the

tal. J. Kiseda and H. Foglia of this group are well known to magnetic device experts for their previous work on associative memories, which has also been published in the *IBM Journal.*

The field of medium capacity, medium speed is the area of interest of the

high-speed systems design and packaging concepts as well as advanced fabrication techniques are being studied by Y. Verma and P. Brennan in order to reach a proper balance between basic circuit delays and inter-connection delays.

Letter from E

(Cont

Since the conception of the firs
gram-controlled computers in the
40's enormous achievements have

Thomas J. Watson Research Center . . . Watson Scientific Computing Laboratory . . . San Jose Research Laboratory . . . Zurich Research Laboratory

Vol. 5 No. 8 November/62

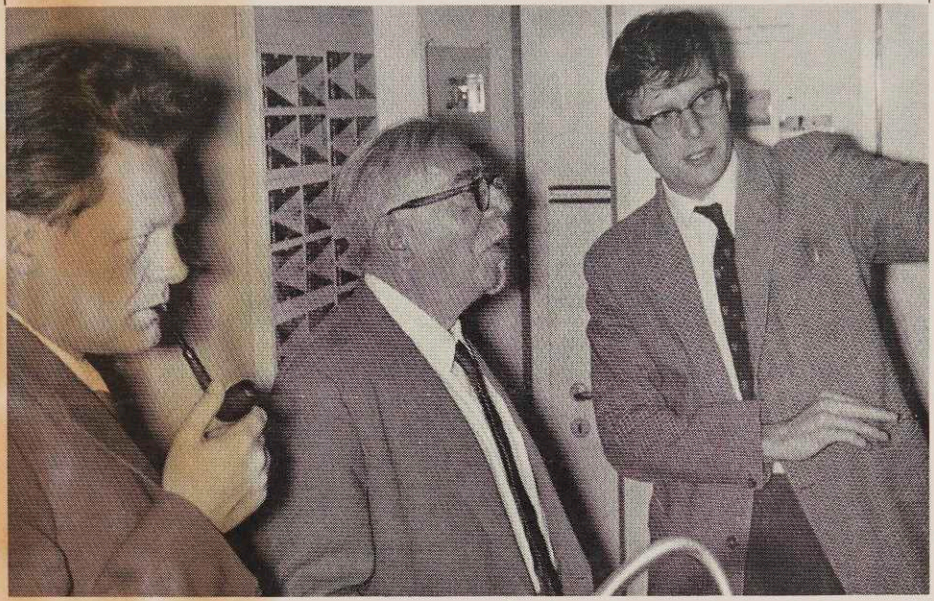
xperimental Machines

tinued from Page 1)

t pro- mental Machines Department in wl
early scientists of these two groups are joi
been exploring the ultimate limitations of

NEWS

Dr. N. Wiener Visitor at Zurich Laboratory



Professor Norbert Wiener, the eminent M.I.T. scientist known throughout the world for his significant work extending far into the physical, the engineering, the mathematical and the biological sciences, was a recent visitor to the Zurich Research Laboratory. His talk on classical mechanics and quantum theory drew the largest attendance ever of people from outside the laboratory. In the above photograph, Professor Wiener (center) discusses the program of fluid logic devices research with Dr. Allan E. Mitchell (right) of the Fluid Dynamics group and Dr. H. Thomas (left), Acting Manager of the Thin Film Physics and the Semiconductors Groups.

AROUND THE COMPUTER CIRCUIT

Westinghouse Electric Corporation is developing a high-speed computer system which can be used in solving a wide variety of scientific problems. The new system will operate from 15 to 250 times as fast as any conventional computer now on the market. It is called SOLOMON, derived from the letters in words describing the computer's over-all organization—*Simultaneous Operation Linked Ordinal Modular Network.*

Mergenthaler Linotype Co. has announced an agreement with the CBS Laboratories division of Columbia Broadcasting System, Inc. for the long-term development of an "*ultra high-speed phototypesetting machine*" *capable of operating from a computer or magnetic tape.* If CBS Laboratories develops such a machine, Mergenthaler probably will make and market it.

General Dynamics Electronics has developed a computer that can be taught to read—recognizing all letters and numerals of the English alphabet, capitals and lower case, in at least six type faces—*as fast as the characters can be fed into it.* It "sees" letters and figures through a pin-up board arrangement of 256 electrical contacts in a square, 16 units in each direction. It gets its instructions through a conventional teletypewriter keyboard which the operators use to spell out their instructions. In doing this they use a binary code.

Farrington Electronics, Inc., has obtained a patent on an optical scanning technique that enables the *scanner to read through material that has been stamped over or defaced.*

Nippon Electric Co., Ltd., Oki Denki K. K., and Fuji Tsushinki K. K.—three of Japan's leading electronic manufacturers—will conduct a joint research program with government subsidies estimated at $540,000 to *develop a large size computer comparable to IBM's 7090* within the next three years.

The Sperry Gyroscope Company recently demonstrated a miniature "brain cell" of optical fibers that can recognize spoken words, and can be made small enough so that a desk-size console could have as many memory units as the human brain has brain cells. Called a Sceptron, *the device will have a host of applications in the new field of pattern recognition*—the construction of machines that can read handwriting or printing or scan photographs and recognize faces.

The Radio Corporation of America announced recently that its research laboratory near

JOSEPH D. GRIFFIN

44 SCHOOL STREET. BOSTON 8. MASS.

November 1, 1962

Mr. Norbert Wiener
53 Cedar Road
Belmont 78, Massachusetts

Dear Mr. Wiener:

I am writing to you in behalf of Frank J. Mazzio, Jr., a candidate for Representative of the General Court.

Mr. Mazzio has a fine record behind him. As a young student he was awarded a full four year scholarship to college for his solution to the Belmont traffic safety program. Belmont, as you know has won numerous awards for traffic safety for a number of years. Mr. Mazzio is a life long resident of Belmont and has served in numerous capacities both in Belmont and in the state and is a Veteran of World War II.

Mr. Mazzio is young, intelligent, and aggressive; qualities which we in Belmont need badly in our State House. I urge that you give serious consideration to the candidacy of Mr. Mazzio.

Yours truly,

156 Common St.
Belmont, Mass.

(1)

[illegible]

[illegible] June 27, 62

[illegible] called. Elects.

[illegible]

[illegible]

[illegible]

[illegible]

Publ. [illegible] the for. 01563 [illegible]

[illegible]

L. Sh.

Imre

When you have a minute, would you do me a favor & translate this for me? Thanks!

Eva

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE 39, MASS.

DEPARTMENT OF MATHEMATICS

November 1, 1962

Professor Norbert Wiener
Department of Mathematics
Room 2-276
M.I.T.

Dear Professor Wiener:

An international conference to bring together, under the most favorable conditions for searching and unrestricted discussions, scientists interested in the Theory and applications of analysis in function space, has been planned for the period June 9-13, 1963. Mathematicians and physicists will be represented, in the basic fields of analysis in Wiener space and in general linear spaces on the one hand, and in functional integration methods in quantum mechanics, especially quantum field theory, on the other. In addition it is intended to cover the crucial connections with Brownian motion, statistical mechanics, and other relevant fields. The whole area has been a novel and exciting one beset with many unexplored relationships and some conceptual difficulties, and it is hoped that the most direct sort of interaction between those with outstanding mathematical or physical contributions or interests will clarify the field, accelerate progress, and provide a consolidated basis on which younger scientists may build.

Attendance will be by invitation and will be limited to around thirty-five plus some additional scientists in the Cambridge area. The desire to keep the size small enough to ensure fruitful discussions, and the location of the Conference itself, both serve as limiting factors on the attendance. Invitations are being issued by a Planning Committee consisting of M. Kac, W. T. Martin, E. W. Montroll, J. Schwinger and I. E. Segal. On behalf of the Committee, we would like to invite you to participate in the Conference and open the Conference Sunday evening with an address on the whole of analysis in function space and its applications, including prospective developments as you visualize them.

We plan to publish the Proceedings and would appreciate having a copy of your lecture in a form suitable for publication at the earliest possible date, preferably by the end of the Conference. A manuscript fee of $250 will be given on receipt of the manuscript.

Sessions, housing, and meals will be in M.I.T.'s Endicott House, an estate near Cambridge, which will be devoted exclusively to the use of the Conference during its duration. Information concerning the precise location of Endicott house is also enclosed. A page

describing financial arrangements is enclosed. It is planned to have a limited number of scheduled lectures, of total duration at most three or four hours per day. It is expected that from these and the scientific interactions of the participants spontaneous seminars and ad hoc discussions will evolve. The Conference is financially supported by the Air Force Office of Scientific Research under a contract with M.I.T.

We hope very much that you will be able to attend the Conference. It would facilitate planning if we could have a reply from you at your earliest convenience. Your reply may be addressed to the undersigned.

Sincerely yours,

Ted Irving

W. T. Martin I. E. Segal

Department of Mathematics
Room 2-276

November 1, 1962

Dr. L. Shaumjan
"Sovietskaja Encyclopedia"
Moscow, J-28
Pokrovskii bul'var 8
USSR

Dear Dr. Shaumjan:

In Professor Wiener's absence, I should like to acknowledge your letter of October 10 and thank you for the invitation extended to Professor Wiener to contribute an article to your new encyclopaedia.

Unfortunately, Professor Wiener has been abroad since February of this year and will not return until February 1963. He is currently at the University of Naples where I shall forward your mail immediately.

I should like to mention, however, that we never received your first invitation of June 27, and I am sorry that you have had to write again. There is not much time left until December, but if Professor Wiener finds time to do it, I am reasonably certain that he will. However, the decision rests with him.

You should hear from him very soon. In the meantime, I hope that this letter reaches you to explain the circumstances.

Sincerely yours,

Eva-Maria Ritter
Secretary to Prof. Wiener

re invitation to write articles of 12-14 pages for Soviet Encycl. edition of Automation & Industrial Electronics to be in by December. Will be paid.
First invitation of June 27 never reached us.

MATHEMATICS IN SCIENCE AND ENGINEERING

A Series of Monographs and Textbooks

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ACADEMIC PRESS INC.
111 Fifth Avenue
New York 3, New York

2 November 1962

Professor Norbert Wiener
Istituto di Fisica Teorica
Universita di Napoli
Napoli, ITALY

Dear Professor Wiener:

Thank you very much for your kind letter about the possibility of a joint book by yourself and Masani. I am delighted to hear that you consider this a possibility, since I feel that a book of this nature would be a major contribution to both modern analysis and modern control theory.

I will write to Masani and tell him how you feel about things.

Cordially,

Dick Bellman

RB:jh

Richard Bellman

Wiener personale

Dott. Evandro Benvenuti
Segretario Generale
Rassegna Internazionale Elettronica
Via della Scrofa 14
R O M A

Gentile Dottor Benvenuti,

Le accludo la versione corretta e perfezionata del testo della conferenza del Professor Wiener, insieme alla copia del vecchio testo da Lei speditami, per l'eventuale confronto.

Come potrà notare la parola "shot" è effettivamente corretta così com'è, in quanto deve avere il significato di "colpo" e non di "corto" (vedi pag. 3, vecchio testo, righe 2, 4 e 9). Per il resto, ho corretto, con l'aiuto del Professore stesso, là dove Ella mi aveva indicato, e spero quindi che, nella versione attuale, il testo possa essere trasmesso alla tipografia.

La prego di scusare il disturbo che ciò può averLe arrecato, e ci accettare vivissimi ringraziamenti, anche da parte del Professor Wiener, per il Suo gentile e valido interessamento.

Con i migliori saluti,

La Segretaria
Annamaria Hilliard
(Mazzarella)

Annamaria Mazzarella

November 3, [1962]

Dr. J. M. Samsó Dies
Departamento Electroencefalografia
Clinica Pediatrica Teknon
Herráiz 2,
Barcelona 17
Espana

Dear Dr. Samso Dies:

Many thanks for your kind letter of the eleventh of August. I must first apologize for my late answer. We have been travelling over a good part of Europe all summer, and some of my mail was not forwarded to me. I am trying to catch up with the work accumulated during our absence and am just now getting around to your request for an article or a prologue.

As to an article, I feel that I have expressed myself so often that I have very little to say that I have not said already. As to a prologue I feel disposed to do it after I have seen the book in detail and can make it relevant to the lectures. So if it is not too late already, please send me the material.

We shall be in Naples until the end of the year when we return to the United States and M. I. T. My wife and I often speak of the wonderful visit we were privileged to enjoy in Barcelona under your kind guidance. Please convey our best wishes to your dear wife and family, as well as to your parents which we were privileged to meet.

Sincerely,

Norbert Wiener

Professor Dr. Paul Glees
Kreuzbergring 36
Göttingen
Germania

Dear Professor Glees:

I am very much struck by your article on Memory and find that the general point of view in quite in harmony with the views expressed by Dr. Braitenberg and Professor Caianiello of the cybernetic institute of the Istituto di Fisica Teorica here in Naples. Dr. Braitenberg in particular, is very much struck with the plasticity of the cells of the brain and even of their synaptic connections. The statistical of the btain in youth and in old age support the hypothesis of a memory expressed by structural changes. Thus the phenomenon which you describe wgich is analogous to what occurs in viruses and genes is not altogether unexpected, but represents a very valuable contribution to an important subject.

I am glad to enclose the photograph you asked for in your letter. With best wishes, I r main,

sincerely yours,

Norbert Wiener

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF MATHEMATICS
LOS ANGELES 24, CALIFORNIA

November 5, 1962

Professor Norbert Wiener
53 Cedar Road
Belmont, Massachusetts

Dear Professor Wiener:

The University of California Press is initiating the publication of a series of books, to be known as "Science Surveys." The books will ordinarily deal with physical and mathematical sciences, with their applications to other fields, and with engineering. For its material, the series will draw largely, but by no means exclusively, on short courses offered by Engineering Extension and Physical Sciences Extension. Sometimes the material will be original with the author, while in other instances it will represent a collecting and compressing of relatively new but previously published works. The series should become a reliable source of information on science presented compactly and simply for trained but not necessarily expert readers.

Ordinarily, the books will extend to between 128 and 160 printed pages and will be priced from $4.25 to $4.95. This relative brevity should make the writing not too much of a chore for the authors. The resulting dense packing of ideas and the low price should make the books attractive to the purchaser. The present vigorous advertising and marketing policies of the Press (which has recently opened an office in New York) should add to the foregoing considerations to make this a scientifically significant and successful series.

We would like to start the series with the simultaneous appearance of at least six attractive volumes. Your own Extension course, on "Harmonic Analysis for Engineers and Scientists," seems admirably suited to this purpose, and I am pleased hereby to invite you to submit a manuscript based on this course for "Science Surveys."

If you will be having guest lecturers, perhaps you will want to ask them to serve as coauthors with you, under your editorship; in this case, the royalties would be divided however you see fit.

The Press has agreed to a very liberal royalty arrangement for this series in order that we might compete successfully with commercial publishers for the most attractive books. Namely, the royalty is to be 12 per cent of the list price for the first 2500 copies, and 15 per cent thereafter, on the initial hard-covered edition. (On any separate limp-covered edition following the original publication, the royalty will need to be separately negotiated.) I hope that the desirability of publishing through the University Press, added to the financial consideration, will make this offer attractive to you.

If you are interested, please let me know and I shall have the Press send a provisional publication contract to you. "Provisional" means that the usual escape clause will be added, to protect against the unlikely submission of an unacceptable manuscript. If you have questions or suggestions, I would be most pleased to receive them. I shall be serving as General Editor of the series, and probably later we shall select an Advisory Board to lend prestige to the series and to help in procuring additional valuable manuscripts.

Sincerely yours,

E. F. Beckenbach

E. F. Beckenbach

EFB:eb

Have answered saying they'll hear from you. I imagine Michael Marcus would be interested, too, since he is familiar with the material.

[ans 11/26/62]

SALON INTERNATIONAL DE L'ELECTRONIQUE, DE L'ENERGIE ATOMIQUE ET DE LA TELE-RADIO-CINEMATOGRAPHIE
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5 Novembre 1962

prot.n.X/359 EMR/Bea

Gentile Signora
Annamaria Hilliard Mazzarella
Istituto di Fisica Teorica dell'Università
Mostra d'Oltremare, Pad. 19
NAPOLI

Gentile Signora,

ci è grato assicurarLe che abbiamo regolarmente ricevuto la Sua lettera del 2 corr. con i suoi allegati e desideriamo ringraziare vivamente il Prof. Wiener e Lei per la pronta risposta e la loro così gentile collaborazione.

Gradisca i nostri migliori saluti.

Il Segretario Generale
(dr. Eraldro Benvenuti)

PROTOCOLLO
- 6 NOV 1962
N. 6606 Rep.

THE ROCKEFELLER INSTITUTE

A Graduate University and Research Center

NEW YORK 21, NEW YORK

November 5, 1962

Professor Norbert Wiener
c/o Institute of Theoretical Physics
Naples, ITALY

Dear Norbert:

I have just gotten word from Ted Shedlovsky that your ergodic path is about to hit New York on January 21. These glad tidings prompted me into taking action and I have reserved a room for you and Mrs. Wiener in our Faculty Club for a full week beginning January 21, when following the path of Christopher Columbus you will rediscover America.

I need not tell you how happy I am that you will be with us for a week and how much I am looking forward to discussing with you statistical mechanics and everything related to it.

With best regards to you and Mrs. Wiener,

I am,

Yours,

M. Kac

THE ROCKEFELLER INSTITUTE

NEW YORK 21, NEW YORK

November 5, 1962

Dear Norbert:

Delighted to hear from you ! Beatrice had written to Margaret to a Scandinavian address, I believe, but the letter came back. Things have been going pretty well with us as they evidently have been with you. I look forward to comparing notes in detail when we see you in January. By the time you receive this note you will also get one from Mark Kac telling you the plans for your visit to the Institute on your return stand firm. Unless something unexpected interferes, I look forward to meeting you at the pier when the Vulcania docks in New York on January 21, 1963. After clearing with Customs, etc. we shall proceed directly to the Institute.

With warm greetings to you and Margaret from us all,

Yours,

Ted

Theodore Shedlovsky

P.S. Reservations for you and Margaret as guests of the Institute in Abby Aldrich Rockefeller Hall will be made from January 21st through January 28, 1963.

TS:ls

no. 12

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASS.

DEPARTMENT OF MATHEMATICS

November 5, 1962

Dear Prof. + Mrs. Wiener,

Thank you for your letter of October 30 — and especially for the check of $100. Although I greatly appreciate your sending it, I think that it really was not necessary — I just wanted to tell you how I felt about my wandering (they have labeled me "the permanent substitute"), but I did not mean to imply anything else. However, I think you know that. All the same — I am very grateful and don't have to tell you that I can use it!

I am now working and will stay there on a flexible basis (as of last Friday) with Prof. Barnett. I had been offered a job in Dr. Killian's office, could have had it, but when Prof. Barnett heard of it, he offered to keep me on until you come back for as many hours as I want to put in. And as I had adjusted to my new surroundings, even though I do nothing but heavy mathematical manuscript work, I consented.

I have arranged for a mailing of Cybernetics to Mr. Wibrowski in Cracow, via the loop. The Tempter was sent to Prof. Monnier as soon as I received your letter from Sanfordaria, which was about the 2nd week in September.

No, you did not tell me of your plans regarding your return trip before this letter, but you must be relieved now that your plans are (almost) definite.

Prof. Okehara has requested your address. He wants to send you the new Jap. Cybernetics, also wants to know how you are.

Not much else is new. Best regards to once again Thank you!

Sincerely, Ina-Maria Ritter

P.S. Under separate cover, I am sending you (rather late) a copy of the Tempter. Do hope you may enjoy it, or read it to the Prof. of the Armenian Acad. of Sciences. Prof. Pettersson wire pos for the stamps.

No. 12

November 5, 1962

Dear Prof. & Mrs. Wiener,

Thank you for your letter of October 30 — and especially for the check of $100. Although I greatly appreciate your sending it, I think that it really was not necessary — I just wanted to tell you how I felt about my wandering (they have labeled me "the permanent substitute"), but I did not mean to imply anything else. However, I think you know that. All the same — I am very grateful and don't have to tell you that I can use it!

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I have arranged for a mailing of Cybernetics to Mr. Wibrowski in Cracow, via the Coop. The Tempter was sent to Prof. Monnier as soon as I received your letter from Yugoslavia, which was about the 2nd week in September.

No, you did not tell me of your plans regarding your return trip before this letter, but you must be relieved now that your plans are (almost) definite.

Prof. Okehara has requested your address. He wants to send you the new Jap. Cybernetics, also wants to know how you are.

Not much else is new. Best regards & once again thank you!

Sincerely, Eva-Maria Ritter

P.S. Under separate cover, I am sending you (rather late) a copy of the Tempter. Do that you may autograph it & send it to the Pres. of the American Prof. Pettapa. Will pay for the duty.

Institut für Histologie
und experimentelle Neuroanatomie
der Universität Göttingen
Direktor: Prof. Dr. med. P. Glees
M. A., D. Phil. (Oxon)

Göttingen, DEN 7. 11. 62
Kreuzbergring 36
Telefon 5 67 16

GL/MA

Herrn
Prof. Norbert Wiener
Istituto Di Fisica Teorica
Mostra d'Oltremare, Pad. 19

NAPOLI, Italien

Dear Prof. Wiener,

Many thanks for your kind letter and your encouraging commends about the serie of 'memory structures'.

I wonder whether you would be able to organise a symposium on the subject at some future date when we could meet and discuss these things in a small circle together with bio-physikers for I am afraid my knowledge in this field is very limited.

Please give my regards to Dr. Braitenberg and PRof. Caianiello whom I would like to meet should I come to Na poli where I worked at the psychological station in 1938.

With my best wishes,
Yours sincerely,

Paul Glees.

November 7,

Professor L. Radanovic
Etan, Yugoslav Committee for Electronics and Automation
Terazio 23
Belgrade
Yugoslavia

Dear Professor Radanovic:

Now at a distance of two months I have another occasion to write to you concerning the Opatija meeting. I have communicated my observations and conclusions concerning the meeting to Dr. J. S. Barr of the Harvard Medical School and the Massachusetts General Hospital who is working with our group on prosthetics and is its director. Dr. Barr is very much interested in the prosthetic hand which I described to him and would like to examine the hand more closely in connection with our further work. Would it be possible for us to buy one or if you do not have a second example to have one made at our expense. I should be very grateful if you could let me know as soon as possible. I am leaving Naples by the 10th of January to return to M. I. T.. Dr. Barr's address is:

Dr. Joseph S. Barr
Department of Orthopedic Surgery
Massachusetts General Hospital
Boston 14, Mass. U. S. A.

With best wishes and hoping to hear from you soon, I am,

Sincerely yours,

Norbert Wiener

[see 10/1/62 and 10/24/62]

ko 13

Zeul Nov 9

Arthur Wolf

UNIVERSITY OF CALIFORNIA
SAN FRANCISCO MEDICAL CENTER

SCHOOL OF MEDICINE
DEPARTMENT OF PHARMACOLOGY
SAN FRANCISCO 22, CALIFORNIA

November 8, 1962

Professor Norbert Weiner
Instituto Di Fisica Teorica
Mostra d'Oltremare, Pad. 19
Naples, Italy

Dear Professor Weiner:

I am writing to urge you to reconsider accepting our invitation. I can fully understand your reluctance to "give the support of (your) name to conjectures which may be very easily overthrown". However, I hasten to remind you that the history of science is replete with instances of ideas which, while they were in themselves incorrect, gave rise to concepts of great power. I would also point out to you that it is possible to cite characteristics and problems of information storage and retrieval in physical systems which seem to be similar rather than analogous to those of biological systems. I cannot help but recall to your attention the power and generality of your concepts of feedback for physiological systems.

Finally, I would like to point out that aside from our public lecture, there are the informal seminars with our students. It is my conviction that too many people in the biological sciences are unaware of the value of the use of mathematical models for describing biological systems, and I am certain that you could positively stimulate our students at our small seminars.

Sincerely yours,

Bernard T. Engel

Bernard T. Engel, Ph.D.
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BTE:rn

[ans 12/5/62]

מכון ויצמן למדע

AMERICAN COMMITTEE FOR THE WEIZMANN INSTITUTE OF SCIENCE

515 PARK AVENUE • NEW YORK 22, NEW YORK • PLAZA 2-1300

HARRY LEVINE
Treasurer

Annual Weizmann Dinner
THE AMERICANA • THURSDAY
DECEMBER 13th, 1962
HARRY LEVINE, Chairman
Co-Chairmen:
ABRAHAM FEINBERG • ARTHUR B. KRIM
DEWEY D. STONE

November 9, 1962

Dr. Norbert Wiener
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dear Dr. Wiener:

The 1962 Annual Dinner of the Weizmann Institute of Science will take place on Thursday, December 13th, at the Americana of New York. This year's event marks the Tenth Anniversary of the death of Dr. Chaim Weizmann, Founder of the Institute, and Israel's first President.

On behalf of the American Committee for the Weizmann Institute of Science, and personally, I express the hope that you will be able to join us as a guest of honor at this Dinner. I am enclosing a formal invitation which includes Mrs. Wiener.

Kindly let me know as soon as possible whether you can join us, so that I may mail you your complimentary guest tickets and arrange for your seating at our Dinner.

Kindest regards,

Very cordially yours,

Harry Levine

Harry Levine
Dinner Chairman

[ans 11/15/62]

BRYN BEORSE
POST OFFICE BOX 142
KEYPORT, WASHINGTON

November 12, 1962

Dr. Norbert Wiener
Universita Di Napoli
Istituto di Fisica Teorica
Mostra d'Oltremare
Pad. 19, Napoli, Italy

Dear Dr. Wiener:

Thank you for your letter of October 19 which reached me just as I took off for your M.I.T. and Washington, D.C.

From the distant shore of Italy you helped to make my trip an amazing triumph in spite of your apprehension. First, I would never have thought of going to M.I.T. had I not met you and been encouraged by your kind suggestion in 1961. But, you not being there, I went without introduction and saw the Chairman of the Economics Department, Dr. Robert L. Bishop, who from a cautious and critical attitude at first, completely turned my way and particularly when I told him some people had considered the proposal similar to the Russian system. This part made everybody feel sorry for me and encouraged to come to my aid with brandishing swords.

I don't know where you have your information on Russians from but the difference between us and they is exactly that they never have surveys but just jam into their computers some immature ideas of their leaders. We ask the man in the street first. This is the survey system and it does more for America than for any other country because of the constancy of our consumers' demands and wishes. The great achievement just after World War II when everybody bought what they had promised survey-takers stands out in all economic history.

Anyway, Dr. Bishop suggested I see Dr. Dunlop at Harvard and Dr. Richard Bissell, head of a new all-powerful agency in Washington, D.C., and Dr. Dunlop again after much good advice suggested I see Dr. Seymour Wolfbein in the Labor Department who is just busy on a manpower survey.

These two Washingtonians along with Dr. Schlesinger and Dr. Seymour Harris -- advisor to the Secretary of the Treasury -- embraced this comprehensive survey proposal with such enthusiasm that I hardly could believe my ears and agreed with me that it was an urgent sequence to our specific economic development so far and was overdue. Thank you and

Sincerely yours,

Bryn Beorse

Professor W. T. Martin
Department of Mathematics
Massachusetts Institute of Technology
Cambridge 39, Mass.
U. S. A.

Dear Ted:

Thank you for your kind letter of November 6. I shall send the check to the Second Century Fund following the first two of your suggestions.

There is another matter I would like to mention to you. There is a very brilliant young man, an instructor at the Institute here who has been collaborating with me and is helping me write up a paper which I hope will an important one on statistical mechanics and quantum theory. I should like to have him work with me in the States for a year possibly. It is his intention to come back to Italy and take up a higher here at the Institute. His name is Jaques Della Aricia, and he comes of mixed Italian and French parentage from Haifa in Israel. He has a degree from the Sorbonne and is regarded here as an important man for the future of the Institute. His work has been mostly in mathematical physics, but is rapidly taking a more mathematical slant. His English is quite good. He is an obliging, pleasant man who is frank and cooperative. He is accessible to ideas, but always retains a most helpfully critical attitude. The two of us have been of consideralbe use to one another so far, and I think that further collaboration is indicated. I think he would be socially and scientifically a good addition to the department at M. I. T. If any idea comes to you how to handle this matter or what further information would be needed in case you are interested, please let me know. I might add that he has several years of successful teaching experience

and I regard him as fully competent to give a course in English.

I have just received yours and Professor Segal's letter concerning the international conference in the Theory and Applications of analysis in Function Space at Endicott house from the ninth to the thirteenth of June 1963. O f course, I shall be glad to give the opening lecture on Sunday evening, June 9. Since I have agreed to participate in a symposium at the Mathematics Research Center of the University of Wisconsin from June 12-14, it looks as though I shall have to leave a day or so early. Shall we leave this to be settled when I am back at Tech in February?

With best wishes to everyone in the department and especially to you and your family, I am,

sincerely

Norbert Wiener

P. S. It would be wonderful for Della Aricia and me if he could come for the spring or/and the fall term. It would fit in beautifully. He intends to devote most of his time to this work in the future, and it would be excellent if he could get to know personally the people in this field. We have really made great progress in applying random functions to the basis of quantum theory in a way far superior to that of Feynman, and I believe we have solved the determinism and the indeterminism problem, and the problem of the nature of probability in quantum theory. Our deterministic system is in the system to which quantum theory approximates, but an entirely different system with a different and I believe simpler potential. This system is forced upon us and admits of no alternative.
Tentative title of our paper:

Function Space and Determinism in Quantum Mechanics

November 14, 1962

Professor H. L. Tallman
Physical Sciences Extension
Room 6532 Engineering Building
University of California
Los Angeles 24, California
U. S. A.

Dear Professor Tallman:

First of all let me thank you for your very kind letter of November 5, repeating the verbal invitation of July 26, 1961, to give a short two week course again in the summer of 1963. I had, indeed not forgotten it, and my wife and I are very much looking forward to being at U. C. L. A. again next summer.

As to the prospective date of the course my situation is the following. In February 1963 I shall back at M. I. T. for the second term. On June 9-12 I am participating in a symposium at M. I. T. (Endicott House) on the theory and Applications of analysis in Function Space. Thereupon I leave immediately for Madison, Wisconsin, to take part in another mathematical conference at their mathematical research center which lasts through the 14th of June. Since I shall be already halfway across the continent, I might as well continue on to California. It might be good for me to have a rest period before beginning the lectures at U. C. L. A., possibly in the Sierras. I don't know to what extent the week of the Fourth of July affects the arrangement of the courses, but I am at your disposal for a two week period from the 17th of June to the 14th of July.

I shall be in touch with Mr. Marcus as soon as I get home. With best wishes and hoping to hear from you, I am,

sincerely,

AGENCJA ROBOTNICZA
REDAKCJA
Warszawa, Pl. Starynkiewicza 7
Skrót telegr. „ARPRESS"

Warszawa 15.XI. 1962

Dear Sir,

The Agencja Robotnicza Press Agency Bulletin "Wiedza i Technika" has launched a poll on "What eminent scientists and intellectuals wish the world in the New Year, with particular consideration of their respective fields of study and sciences represented".

We should feel greatly honoured and be obliged if you would consent to take part in our poll.

"Wiedza i Technika" Bulletin has among its steady subscribers the entire Polish daily press, as well as the Polish Radio and Television.

Given your consent, we should beg you to mail your entry at a possibly soonest date for we intend to publish the entire material collected before the New Year 1963 sets in.

We remain,

Yours faithfully,

RD

Ryszard Donski, M.Sc.
Editor

Felix Paul

Hamburg den 15.November 1962
Eppend. Weg 211 I
GERMANY

Herrn

Professor Dr.Norbert Wiener
Universität Boston

B o s t o n U.S.A.

Sehr geehrter Herr Professor !

Aus Ihrer Autobiographie "Mathematik mein Leben", jetzt auch in deutscher Sprache erschienen, entnehme ich, dass Sie am 26.November Ihren Geburtstag feiern. Ich möchte Ihnen hierzu meinen herzlichsten Glückwunsch aussprechen und Ihnen für die kommenden Lebensjahre weiterhin Gesundheit und volle Schaffenskraft wünschen.

In der in Hamburg erscheinenden Tageszeitung " Die Welt " fand Ihr Buch eine sehr gute Rezension; vielleicht macht es Ihnen Freude, wenn ich diese dem Briefe beilege.

Der Schreiber dieses Briefes hatte das Glück - es war bestimmt kein kybernetischer Vorgang - Sie, sehr geehrter Herr Professor, im Juni dieses Jahres in Lindau/Bodensee, am Hafen vor Ihrem Hotel, kennenzulernen. Sie waren auf der Durchreise von Österreich nach Zürich und weiter nach Paris. Es ist vielleicht schwer vorzustellen, dass Sie sich bei der Fülle der Menschen und Namen, die Ihnen im Laufe Ihres Lebens in allen Weltteilen begegnet sind, an dieses Zusammentreffen erinnern werden. Für mich war es eines der Glücksfälle im Leben, Sie persönlich kennenzulernen. Diese Erinnerung ist darum auch sehr wach geblieben.

Obwohl nicht Wissenschaftler, obwohl nicht Mathematiker habe ich doch Ihre Lebenserinnerungen mit grossem Interesse gelesen. Als ich das Buch zuklappte und darüber nachsann, worin die Faszination und die Schönheit Ihrer Lebensschilderung besteht, kam ich zu folgendem Resümee. Vom Spezialstudium, von der Speziellen Wissenschaft der Mathematik haben Sie sich nach allen Seiten, nach oben und unten blickend, immer weitere Wissensgebiete erschlossen, sodass Sie sich in Ihren Gedanken, in Ihrer Forschung schliesslich der gesamten Universitas hingaben. Sie haben also konsequent das getan, was eigentlich jeder Mensch tun sollte. Sie haben, den Horizont ständig erweiternd, versucht das Leben in aller Vielgestaltigkeit zu erfassen, um die Welt und die Schöpfung zu begreifen. Das ist sicher eine befriedigende Erkenntnis, das Leben, sein Leben nicht vertan, sondern bewusst gelebt zu haben.

Psychologisch gesehen hatten Sie von der Geburt her sehr viel Phantasie und architektonisch gestaltende Vorstellungskraft mitbekommen, vom Vater, als Erbenergie, dazu einen starken Willen und die Fähigkeit, die Vorstellungswelt mit scharfem Verstand zu analysieren. In dieser Synthese verbunden mit grossem Fleiss hat sich Ihr Leben so erfolgreich gestaltet.

Die Schönheit Ihres erzählten Lebens liegt also darin, dass Sie ein bewusst gelebtes und aus Ihren Neigungen und Fähigkeiten ganz ausgeschöpftes Leben geführt haben. Wie selten werden das Menschen von sich sagen können.

Die Lehre von der Kybernetik wird von mir als Laie intuitiv erfasst, aus meiner speziellen Neigung zur Psychologie wende ich diese Lehre auf diesem Gebiete wahrscheinlich ganz richtig intuitiv an. Wie sehr aber auch ein Laie darum ringt, die Welt mit ihren ständig wachsenden neuen Erkenntnissen zu verstehen, möge Ihnen eine kleine hier beigefügte Plauderei "Physikalische Impressionen", vor etwa 10 Jahren zum Hausgebrauch von mir erzählt, veranschaulichen.

Ich hoffe sehr, dass Sie meinen Brief bei bester Gesundheit empfangen, und dass Sie dabei vielleicht doch ein wenig an den schönen Sommertag am Bodensee sich erinnern werden.

Mit ergebenem Gruss

Ihr Felix Paul.

Die Mathematik des Zufalls

Norbert Wieners erstaunlicher Weg zur Kybernetik / Von CHRISTOPH WOLFF

NORBERT WIENER: MATHEMATIK — MEIN LEBEN. Econ Verlag, Düsseldorf/Wien. 328 S., 19,80 DM.

Ratlos standen zahlreiche Kapazitäten aus Physik, Technik und Naturwissenschaften vor einer elektrischen Spielzeug-Eisenbahn. Keiner der Forscher vermochte zu erklären, warum dieses kleine technische Wunder, das Nobelpreisträger Max Born seinen Kindern zu Weihnachten schenken und vorher einigen illustren Gästen vorführen wollte, sich nicht vom Fleck rührte. Erst nach geraumer Zeit gelang es den Koryphäen der Wissenschaft, das Rätsel zu lösen. In dem mit Gleichstrom versorgten Boston, in dem diese amüsante Szene spielte, konnten — was jeder höhere Schüler heute weiß — die Wechselstrom-Transformatoren des Spielzeugs natürlich nicht arbeiten.

Mit zahllosen ähnlichen amüsanten Episoden und Farbtupfen schmückt Norbert Wiener, der „Vater der Kybernetik", seine jetzt im Econ-Verlag unter dem Titel „Mathematik — mein Leben" erschienenen Erinnerungen, in denen er die Geschichte der Mathematik in den letzten fünfzig Jahren wie einen spannenden Film vor dem Auge des Lesers vorbeiziehen läßt. Bedauerlich nur, daß es sechs Jahre dauerte, bis dieses faszinierend und ohne jede Ressentiments geschriebene Buch eines der bedeutendsten lebenden Mathematiker nun auch in deutscher Sprache vorliegt.

„Ich war einmal ein Wunderkind im wahrsten Sinne des Wortes", so beginnt Wiener seine Memoiren, „denn noch ehe ich zwölf Jahre alt wurde, kam ich auf ein College, bestand mit vierzehn mein Bakkalaureats-Examen und machte noch vor dem neunzehnten Geburtstag meinen Doktor." Aber schon in den folgenden Sätzen zeigt er die Problematik jener „Wunderkinder", die weder durch einen gewaltigen Erfolg noch durch ein „reaktives" völliges Versagen als Wunderkinder ausgewiesen werden, sondern später relativ normale Leistungen zustande bringen. Solche Menschen — und zu ihnen zählt Wiener sich in einem bescheidenen, aber unrichtigen Vergleich selber — müssen schon eine große Charakterfestigkeit besitzen, um die „Enttäuschung" künstlich hochgespielter Erwartungen ohne Einbuße an Selbstvertrauen seelisch zu verarbeiten.

„Ein Wunderkind", so schreibt Wiener, „das nicht auch ein Wunder an moralischer Kraft ist, muß also schon eine Erfolgskarriere großen Stils machen, sonst betrachtet es sich wahrscheinlich selber als Versager — und wird dann auch einer."

Nun: Norbert Wiener jedenfalls hat diese Erfolgskarriere großen Stils gemacht, nicht deshalb, weil er diese Karriere wollte, sondern, weil jede Frage, die er sich stellte, weil jedes Problem, das er anpackte, automatisch ein fast unheimliches mathematisches Leben gewann. Ein Leben, in dem die Prinzipien klassischen Ebenmaßes und klassischer Regelmäßigkeit sich mit jenen verführerischen Phänomenen der Ausnahme, des Ungewöhnlichen, des von Grund auf Unregelmäßigen immer wieder zu paaren suchten. Die Frucht solcher scheinbar widernatürlicher Paarung war ein neues mathematisches System, das es erlaubte, auch die Unordnung in der Natur, in der physikalischen Welt, zu erfassen und wiederzugeben, auch das Unpräzise zu präzisieren, auch den Zufall auf seine Gesetze hin zu untersuchen und aus dem nur Wahrscheinlichen das Notwendige zu extrahieren.

Von dem Studium der sogenannten „Brownschen Bewegung", dem ungeordneten Durcheinanderwimmeln der Moleküle, bis zur Entwicklung jener als „Kybernetik" bezeichneten „Steuermannstechnik", mit deren Hilfe sich das Unübersehbare in das Kalkül einbeziehen läßt, führt jene breit angelegte wissenschaftliche Laufbahn, deren Schilderung mit zahllosen amüsanten und interessanten Episoden gewürzt ist.

Da gab es zum Beispiel den Konkurrenzkampf zwischen Westinghouse mit Wechselstrom- und General-Electric mit Gleichstrompatenten, der dazu führte, daß man in New York Verbrecher mit Wechselstrom hinrichtete, um diese Stromart in Mißkredit zu bringen. Da gab es eine Erfindung, die Wiener zusammen mit dem chinesischen Physiker Li machte und die die Bell Laboratories sofort ankauften, um sie alsbald im Panzerschrank verschwinden zu lassen, weil sie nicht in das Produktionsprogramm der Firma paßte, jedoch für alle Konkurrenten blockiert werden sollte.

Da gab es die Geschichte von einem Duell, bei dem der zur Wahl der Waffen Berechtigte Pfeil und Bogen vorschlug und gleichzeitig Wundermären über seine Künste als Bogenschütze verbreiten ließ. Und da gibt es auch die ergötzliche Schilderung von einer psychoanalytischen Behandlung, der sich der Autor einmal unterzog und bei der ihn der Psychiater erregt des inneren Widerstandes, der „bekannten Todsünde des psychiatrischen Patienten" beschuldigte.

Auf immer mehr Probleme wurde bald, so schildert Wiener, das kybernetische Denkprinzip angewandt. In der Meteorologie, in der Ökonometrie, in der soziologischen Dynamik und auf zahllosen anderen Gebieten, bei denen man mit sehr vagen und zufälligen Faktoren rechnen muß, bediente die Wissenschaft sich bald der neuen Methode, die vor allem auch durch das berühmte M.I.T., das Massachusetts Institute of Technology, ausgebaut wurde. Sogar auf die „Philosophie der Prothesen" und die Technik der Eisernen Lunge dehnte Wiener, der inzwischen fast alle Länder der Welt bereist und dreizehn Sprachen erlernt hatte, seine genialen Spekulationen aus. So war es denn kein Wunder, daß man ihn im zweiten Weltkrieg damit beauftragte, Flugabwehrgeräte und Schiffsgeschütze zu errechnen, die nicht nur nach dem „negativen Feedback-Prinzip" ihre eigenen Fehler korrigieren, sondern die auch die wahrscheinlichen Ausweich- und Abwehrmanöver des anvisierten Gegners einkalkulieren und die Einstellungen automatisch regeln sollten.

Bis zum Schluß hatte Norbert Wiener, der auch von den Entwicklungsarbeiten an der Atombombe Kenntnis hatte, gehofft, „daß in letzter Minute irgend etwas mit der Atombombe nicht funktionieren würde". Diese Hoffnung wurde enttäuscht. „Ich geriet in sehr schwere Gewissensnöte", so gesteht Wiener, obgleich er selber an der Entwicklung dieser Waffe gar nicht beteiligt war. Aber er hatte das geistig-mathematische Rüstzeug für jene Berechnungen geliefert, ohne die die technische Herstellung der Bombe vielleicht nicht möglich gewesen oder zumindest doch erheblich verzögert worden wäre.

Im ganzen: dieses Buch ist aus der Geschichte der Wissenschaft nicht mehr wegzudenken. Es ist darüber hinaus für jeden, der Norbert Wiener einmal kennengelernt hat, das Bekenntnis eines ewig unruhigen, ewig suchenden Geistes und eines Menschen, der sich auch im Alter überall dort, wo er sein Vaterhaus erwähnt, noch zu einer patriarchalischen Ordnung und Unterordnung bekennt, wie sie uns heute fast völlig fremd geworden ist.

Antike Medizin

Daß man sich über „Hippokrates' Schriften" und über „Die Anfänge der abendländischen Medizin" jetzt auch aus einem ro-ro-ro-Taschenbuchbändchen orientieren kann („Hippokrates", Schriften, Rowohlt Verlag, Reinbek, 280 S., 3,30 DM), wird viele Ärzte und Historiker freuen. Von der berühmten Eidesformel bis zu den praktischen Vorschlägen über eine zweckmäßige Diät, von den Theorien über die Ursachen der „heiligen Krankheit" bis zu den oft recht absonderlich anmutenden therapeutischen Ratschlägen bei einer Fülle der verschiedensten Leiden hat Hans Diller hier eine Auswahl aus dem umfangreichen Werk des großen griechischen Arztes zusammengestellt, die einen interessanten Überblick über den Stand der Medizin im vierten vorchristlichen Jahrhundert bietet. Kurze Einführungen zu den einzelnen Kapiteln erleichtern das Verstehen der Zusammenhänge. *C. W.*

Astronomie lernt um

Popularisieren ist eine Kunst – Neue Bücher über Sterne

Der Münchner Fernseh-Astronom Dr. Rudolf Kühn hat eines neues populär-wissenschaftliches Sternenbuch geschrieben. Es ist mit hervorragenden Photos und sehr vielen unterrichtenden Graphiken ausgestattet. Die Bilder verraten über die Vorgänge und Verhältnisse im Weltall mehr, als Worte es vermögen. („Die Himmel erzählen", Droemersche Verlagsanstalt, 192 S., 230 z. T. farb. Abb., 19,80 DM.)

Wer auf Grund des Titels „Die Himmel erzählen" annimmt, es sei ein Sternenbuch für besinnliche Stunden, wird freilich enttäuscht. Von „Sphärenklängen" spürt man nichts, wenn man Kühn liest. Es ist eine populäre Himmelskunde. Von diesen Büchern aber haben wir mehr als genug, und auch die besten von ihnen, die jetzt erscheinen, werden durch die immer schneller voranstürmende Wissenschaft von einem Tag zum anderen überholt.

Die Eroberung des Weltraumes durch Raketen und Satelliten, die Möglichkeit, Sterne von Ballon-Observatorien aus zu beobachten, die hoch über dem Dunst der Erdatmosphäre schweben, die Entwicklung der Radio-Astronomie bringt neue Erkenntnisse, die sich nicht ohne weiteres in unser astronomisches Weltbild einfügen lassen. Vielleicht liegt darin der Grund dafür, daß Kühn beim Schreiben etwas allzu oberflächlich geblieben ist.

Das Buch enthält viele Schnitzer. Zahllos sind die Widersprüche, die jeden unbefangenen Leser verwirren. Zwei Beispiele dafür: Auf Seite 60 spricht Kühn von 2000 Planetoiden, auf Seite 73 liest man dann von 50 000 bis 100 000 Planetoiden. Auch daß die Mondkrater Einschläge „kosmischen Staubes" sind, ist wohl etwas zu ungenau ausgedrückt. Wie groß muß ein Staubpartikelchen sein, das ein Loch von mehreren hundert Metern Tiefe und etlichen Kilometern Durchmesser groß schlagen kann.

Der Definition einiger Fachausdrücke, so der Nutation in der Bildunterschrift Seite 27 kann man durchaus nicht folgen. Der Mond ist im Mittel 385 000 Kilometer entfernt und nicht, wie in der Tabelle auf Seite 177 behauptet wird, eine Sekunde, das heißt 300 000 Kilometer. Über die Gedanken, die Kühn im Zusammenhang mit den Erkenntnissen der modernen Astronomie äußert, sei es im Hinblick auf Sinn und Möglichkeiten der Weltraumfahrt oder auf das Weltbild der Astronomie, kann man streiten.

Popularisieren ist eine Kunst. Rudolf Kühn hat durch seine Fernsehsendungen und durch frühere Veröffentlichungen bewiesen, daß er wissenschaftliche Themen allgemeinverständlich darstellen kann. Es ist schade, wenn er Arbeiten herausbringt, die seinem Ruf schaden.

Dem französischen Astronomen Jean-Claude Pecker darf man dagegen bestätigen, daß er sich mit seinem Buch „Der Himmel" in die erste Reihe populärer astronomischer Darstellungen einen guten Platz gesichert hat (Verlag DuMont Schauberg, Köln, 115 S., 61 z. T. farb. Abb., 19 DM). Er zeichnet aus weiten kulturhistorischen Zusammenhängen heraus die Wandlung des astronomischen Weltbildes von den ersten primitiven Vorstellungen bis zum Weltall, das sich bis ins Unendliche geweitet hat.

Der Verfasser ist Mitarbeiter des Pariser Observatoriums. Das bedeutet, daß das Buch wissenschaftlich zuverlässig ist. Daß es ohne Vorkenntnisse gelesen werden kann und daß es sich angenehm liest, dürfte zum guten Teil auf die gute Übersetzung Karl Schmitz-Moormanns zurückzuführen sein.

Beachtlich ist die Ausstattung des Buches. Es enthält viele farbige und schwarzweiße Darstellungen vom Himmel, von Sternen, Nebeln und Sternwarten. Besonders eindrucksvoll sind die ersten farbigen Aufnahmen des Himmels, die vor kurzem mit dem Riesenteleskop auf dem Mount Palomar/USA gemacht wurden.

„Wunder des Weltalls" zeigt ein Bildatlas des Kosmos von Eduard Penkala (Franckh'sche Verlagshandlung, Stuttgart, 112 S., 121 Abb., 4 Farbt., 19,80 DM). Die größten Sternwarten Amerikas und Afrikas haben aus ihren Photos die besten herausgesucht und zur Verfügung gestellt. Sogar die ersten Farbaufnahmen des Weltalls enthält dieses Buch. Der einfach und kurz gehaltene Text ergänzt den Eindruck, den die Bilder machen. Er stellt die wichtigsten Fragen der Astronomie und macht mit den Ergebnissen bekannt. Über die Frage „Ist das Weltall unendlich?" wird so eingehend berichtet wie über das „Leben auf anderen Planeten", die „Wirbelstürme auf der Sonne" und die Möglichkeiten, den Weltraum zu erobern. Das Buch wird der Astronomie viele neue Freunde bringen.

Joachim Herrmann, der wissenschaftliche Leiter der Wilhelm-Foerster-Sternwarte in Berlin, hat ein Tabellenbuch für Sternfreunde" erarbeitet, das jedem, der sich ernsthaft mit der Astronomie beschäftigt, willkommen sein wird (Franckh'sche Verlagshandlung, Stuttgart, 114 S., 16,80 DM). In diesem Buch sind alle Werte, Daten, Übersichten und Formeln zu finden, die benötigt werden, wenn man beobachten oder Beobachtungen auswerten will. Amateurastronomen und auch routinierte Fachleute werden dieses Buch gern in die Hand nehmen.

Besitzer von kleinen Fernrohren werden sich über die ausgezeichnete Tabelle der Testobjekte und über die umfangreiche Liste der beobachtungswerten Doppelsterne, Nebelflekken und Sternhaufen freuen. Auch der Abschnitt mit den wichtigsten Himmelsereignissen der Jahre 1962 bis 1971, zu denen der Hinweis auf die Sonnen- und Mondfinsternisse gehört, wird sicher viele interessieren. *Arthur Lange*

Zoologie als ehrliches Geschäft

HERMANN RUHE: WILDE TIERE FREI HAUS. Copress-Verlag Hoffmann und Hess, München. 308 S., 19,80 DM.

Aus dem Geschäft mit Kanarienvögeln, zu einer Zeit, da man sie noch in übermannshohen „Reffs" zu Fuß durch die Lande trug, entwickelte sich eine Tierhandelsfirma von Weltruf. Hundert Jahre besteht L. Ruhe, Ahlefeld, und manch prominenter Zoobewohner — seien es der Berliner Gorilla „Bobby" oder „Goliath", der See-Elefant — findet sich neben Tausenden und Millionen in- und ausländischer Tiere in den Geschäftsbüchern.

Vom Handel mit Tieren, von Risiken und Kalkulationen, von nicht selten abenteuerlichen Fangexpeditionen, von der Eingewöhnung und dem oft hindernisreichen Transport der „Beute" und schließlich von den weltweiten Handelsbeziehungen solchen Unternehmens berichtet Hermann Ruhe, der Enkel des Gründers. Er ist heute der Seniorchef der ältesten Tierhandlung Deutschlands.

Die Geschichte der Firma ist zugleich Geschichte der letzten hundert Jahre; nicht nur die politischen Ereignisse, auch die gesellschaftliche Entwicklung werden dargestellt. Vor allem jüngere Leser wird es beeindrucken, daß Tierfänger mit baren dreißigtausend Goldmark „in den Busch zogen", daß Millionengeschäfte allein durch Handschlag besiegelt wurden und daß die Richtschnur „Vertrauen gegen Vertrauen" in diesem von Sach- und Tierverständnis bestimmten Handelszweig trotz aller „Wirtschaftswunderlichkeiten" offenbar auch noch heute gilt. *M. K.*

Wir können „mildernde Umstände" anführen — Ritter tut viel dazu, die Heraufkunft Hitlers geschichtlich zu erklären —, aber wir können die Tatsache nicht leugnen, daß wir als Nation der schweren Aufgabe nicht gewachsen gewesen sind.

Gerhard Ritter

Aus diesen wenigen Beispielen mag deutlich werden, woher die geistig-moralische Kraft rührt, die von diesem Buch ausgeht. (Es ist eine neu bearbeitete Ausgabe des 1948 erschienen Werkes „Europa und die deutsche Frage".) Den Leser rührt der leidenschaftliche Wunsch nach Gerechtigkeit an, der Ritter erfüllt. Man spürt den Drang, das als wahr Erkannte zu sagen, unbekümmert um eingefrorene Glaubenssätze der Politik und Geschichtsschreibung, unbekümmert um verletzte und feindselige Gemüter, ohne Rücksicht schließlich gegen Gedankengänge, die Ritter selber teuer waren.

Da diese Leidenschaft sich auch den Fragen zuwendet, die den Menschen unserer Zeit im staatlichen Alltag beschäftigen, tritt der Autor gelegentlich aus dem engen Kreis der Gelehrtenrepublik heraus, in dem er eine so erlauchte Stellung einnimmt. Ganz offensichtlich will er mehr, als nur Forschungsergebnisse mitteilen. Ihm liegt daran, den Leser von der Geschichte her zur Besinnung über die Gegenwart zu bringen, ihn nachdenklich, reif und entschlossen zu machen.

So sehen wir Publizisten für einen flüchtigen Augenblick den gelehrten Historiker unversehens in unseren Reihen, eine höchst ehrenvolle Bundesgenossenschaft. Wenn der ben zu viele schreckliche Erfahrungen mit ihm gemacht; die Mitteldeutschen machen sie noch täglich. Auch ist der gefährliche Wunsch nach einer deutschen Großmachtstellung erloschen. Die Ereignisse von 1933 werden sich nicht wiederholen.

Aber damit ist die deutsche Freiheit noch nicht gesichert. Die Demokratie wird sich nur durch Leistungen halten lassen. Aber die Gefahr bleibt, daß der Staatsmann dem stumpfen Kollektiv und den Masseninstinkten ausgeliefert wird.

Dennoch sieht Ritter mehr freundliche als ungünstige Zeichen für die deutsche Zukunft. Er glaubt, das Streben zu bemerken, aus dem Kollektiv herauszukommen. Die sozialen Spannungen sind gemildert oder geschwunden, das Heer ist dem lebensgefährlichen Streit der Parteigruppierungen entrückt.

Jäh dringen wieder dunklere Töne zu uns. Unsere Geschichte hat uns immer wieder durch Abgründe geführt; Ritter hält es für denkbar (und sicherlich die Leser mit ihm), daß sich neue, noch schrecklichere Abgründe in der Ungewißheit der Zukunft verbergen. Aber der Autor denkt nicht dran, zu verzweifeln. Gerade vor düsteren Aussichten zieht er nur die entschlossene Folgerung, daß wir die deutschen Fragen vorbildlich lösen müssen und uns neuen geschichtlichen Rang verdienen. Dazu gehört nach seiner Meinung ein echtes Verständnis der Freiheit, im Sinne der Bereitschaft, aus eigener Verantwortung der Gemeinschaft zu dienen.

Die Bürger und die Nazis

Das Braunschweiger Beispiel / Von BERND NELLESSEN

ERNST AUGUST ROLOFF: BÜRGERTUM UND NATIONALSOZIALISMUS 1930—1933. Braunschweigs Weg ins Dritte Reich. Verlag für Literatur und Zeitgeschehen, Hannover. 174 S., 8,50 DM.

Im Dezember 1930 veröffentlichte die „Kölnische Zeitung" auf ihrer Titelseite den Aufsatz eines deutschen Geschichtsprofessors, dem es weder an Mut mangelte, seine dezidierte politische Meinung vor der Öffentlichkeit zu vertreten, noch an der Fähigkeit, dies in einem schlichten Deutsch zu tun.

„Es muß etwas dran sein" — mit dieser griffigen Formel umschrieb der Berliner Historiker Friedrich Meinecke in seinem Zeitungsartikel die wohlwollend-reservierte Einstellung des Bürgertums gegenüber den wilden Männern des Nationalsozialismus. „Man lacht", schrieb Meinecke, „über ihre wirschaftlichen Forderungen, schilt auch in den Kreisen der oberen Zehntausend gesittet über ihren Straßenradau — und doch, merkwürdig, geht in diesen selben Reihen das Geraune über die Nützlichkeit und dermal einstige Verwendbarkeit des Nationalsozialismus sachte weiter."

Was Meinecke, um die Charakterisierung des Verhältnisses von Bürgertum und Nationalsozialismus bemüht, sorgenvoll der „Kölnischen Zeitung" anvertraute, hätte der Entwurf zu einem Buch sein können, das zweiunddreißig Jahre später auf dem deutschen Markt erscheint. Schon der Titel des Buches „Bürgertum und Nationalsozialismus" hält sich an die Überschrift des Zeitungsartikels von Friedrich Meinecke; der Inhalt des Buches bestätigt Meineckes im Bürgertum ungehört verhallte Warnung: Es ließ sich, der Warnung zum Trotz, auf den Pakt mit den Nationalsozialisten ein und lieferte sich damit selbst ans Messer. Dieser beklemmende, beschämende Exitus eines ganzen „Bildungsstandes" wird auf knappen 174 Seiten beschrieben.

Der Verfasser, Ernst August Roloff, konnte kein besseres Beispiel als das des kleinen Freistaates Braunschweig wählen, um die Kapitulation des Bürgertums vor dem Nationalsozialismus darzustellen. Nicht nur, weil er als Sohn eines deutschnationalen Politikers aus Braunschweig und Kenner des braunschweigischen Interessenklüngels viele neue Quellen erschließen konnte, sondern vor allem deshalb, weil Braunschweig historisch den Modellfall par excellence bietet: in keiner Stadt und in keinem Land der Weimarer Republik gefiel sich das Bürgertum so früh in der Rolle eines willfährigen nationalsozialistischen Koalitionspartners.

Braunschweig war einst stolz darauf, die erste Hochburg des Nationalsozialismus genannt zu werden. Einem zur Farce gewordenen Föderalismus entsprechend wurde der Freistaat Braunschweig von zwei Ministern regiert. Einer von ihnen war seit 1930 Nationalsozialist. Der Stolz, damit allen anderen Ländern der Republik vorangegangen zu sein, wurde (zu einer gewissen Zeit jedenfalls) noch dadurch zusätzlich genährt, daß Braunschweig eine exorbitante Ehre für sich beanspruchte: Es hatte Hitler auf dem Umweg über eine neugeschaffene Regierungsratsstelle im Landeskultur- und Vermessungsamt die deutsche Staatsbürgerschaft besorgt.

Wollte man den Weg nachzeichnen, der das politisch organisierte Bürgertum in Braunschweig in den Pakt mit dem Nationalsozialismus und schließlich zum politischen Harakiri trieb, dann wäre nicht nur der bestürzende Dilettantismus gegenüber den grobschlächtigen Parlamentsmethoden des Koalitionspartners zu nennen. Die Unfähigkeit, dem Nationalsozialismus auch parlamentarisch begegnen zu können, hatte tiefere Gründe. Sie sind zu erahnen, wenn die Bürgerlichen zur Rechtfertigung ihrer Zusammenarbeit mit den Nationalsozialisten verkünden: „Die Koalition ist eine Arbeitsgemeinschaft im Dienste des einen, alles beherrschenden Zieles, die Wiederkehr einer Linksregierung zu verhindern".

Hier zeigt sich die bedrohliche ideologische Verengung. „Lieber mit den Braunen als mit den Roten", lautete die Devise des braunschweigischen Bürgertums. Gewiß, die Sozialdemokraten waren ebenso engstirnig und rechthaberisch, aber die schnelle Preisgabe politischer Machtpositionen der Bürgerlichen, nur aus der Angst heraus, daß die „Sozis" wieder ans Ruder kamen, wenn man Hakenkreuzlern nicht willfährig sei, verrät denn doch mehr als nur eine bürgerliche Abneigung vor den Sozialisten.

Zwar wird, zum Entsetzen vieler Bürgerlicher, der Landtag mehr und mehr zur Jahrmarktsbude. Niveauloser werden die Reden, gewöhnlicher, beleidigender wird der Ton. In einer Sitzung spricht das Präsidium 117 Ordnungsrufe und acht Ausschlüsse aus; bewußt lähmen die Nationalsozialisten jede parlamentarische Arbeit. Die Bürgerlichen empören sich, mahnen, drohen ein wenig, aber am Ende verkünden sie dann zur Freude der Nationalsozialisten, die über „eine solche Winselei" nur lachen, daß die zum Teil durchaus nicht unbeträchtlichen Unterschiede zugunsten des gemeinsamen hohen nationalen Zieles zurückzutreten hätten.

Der Mann, der mit den Braunschweiger Bürgerlichen Schlitten fährt, der als Minister Hitlers im kleinen Freistaat schon frühzeitig vordemonstriert, wie es 1933 im großen Reich gemacht werden soll, heißt Dietrich Klagges. Mit brutalen Drohungen, geschmeidiger Raffinesse, Lügen und Schmeicheleien schießt er die bürgerliche Festung sturmreif. Nur papierene Proteste werden gegen ihn vorgebracht.

Nicht weil die soziale Not größer als anderswo oder der Terror der Kommunisten härter war, wurde Braunschweig zur frühen Hochburg des Nationalsozialismus, sondern weil das Bürgertum kampflos das Feld räumte oder sich von dem stärker und erfolgreicher werdenden Koalitionspartner aufsaugen ließ.

Was das Reich noch kennenlernen sollte — die Verhaftung der „Reichsfeinde", die Ausschaltung des Parlaments, die Umwandlung freier Verbände in nationalsozialistische Kader: in Braunschweig wurde es vorexerziert. Als das Ermächtigungsgesetz verkündet wurde, sprach man in Braunschweig schon nicht mehr von der Ausschaltung der SPD; sie war schon erledigt, die bürgerliche Rechte löste sich bereits auf. Die Deutschnationale Volkspartei trat nahezu geschlossen zur NSDAP über; stolz hieß es, Braunschweig sei nun auch die erste Landesvertretung, in der es nur noch Nationalsozialisten gebe. So grub man sich selbst das Grab.

Ist es ein Wunder, daß Braunschweig, auf die frühe Zusammenarbeit mit den Nationalsozialisten und auf besondere nationale Verdienste pochend, mit Gunstbeweisen überhäuft wurde? Der Dom Heinrichs des Löwen wurde von Hitler zur nationalen Wallfahrtsstätte erklärt. Das Residenzschloß verwandelte sich in eine Junker-Schule der SS. In den Schloßpark zog die Adademie für höhere HJ-Führer ein. Adolf-Hitler-Eiche und Thingstätte, das Volkswagenwerk im nahen Wolfsburg, gigantische Pläne für die wirtschaftliche Entwicklung: Braunschweig, schon lange vor 1933 vorneweg, schien allen Grund zu haben, glücklich zu sein.

Das Ende kam im Oktober 1944 mit Feuer, Blut und Tränen, und wer wollte bezweifeln, daß jenes Ende auch der Teufelspakt ausgelöst hatte, den Bürgertum und Nationalsozialismus fast fünfundzwanzig Jahre vorher eingegangen waren?

PHILLIPS PETROLEUM COMPANY

BARTLESVILLE, OKLAHOMA

ADVERTISING AND PUBLIC RELATIONS

R. E. JEFFREY
DIRECTOR, EDITORIAL DIVISION

November 15, 1962

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

Dear Dr. Wiener:

I am enclosing a copy of an advertisement on the subject of "Cybernetics" which our company recently ran, together with a copy of a letter received from Professor Robert M. Grant of the University of Chicago's Divinity School about our use of the Greek term for "steersman" and a copy of my reply to Professor Grant.

You will note that we based our decision to use the "chi" instead of "kappa" on the passage in your book.

I thought you might find this matter of interest because of your position in this field. Also, it is possible, because of your position in the field and your book, that persons who see our advertisement or a forthcoming folder along the same lines we are sending to our stockholders, may bring our material to your attention.

No acknowledgement of this letter is expected, but I did want to inform you of this close connection with a field of such interest to you.

Cordially yours,

R. E. Jeffrey

R. E. Jeffrey

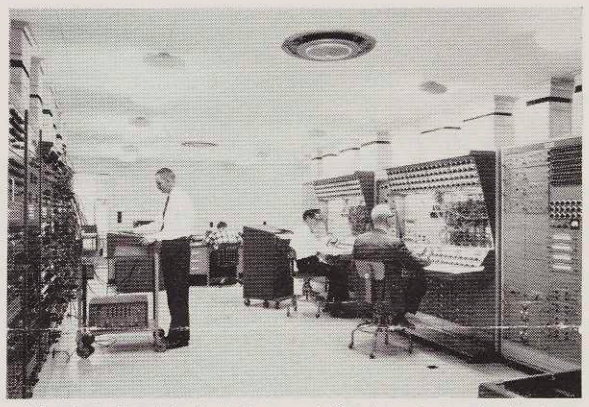
REJ:amt
Enclosures

Looking Ahead with Phillips Petroleum . . .

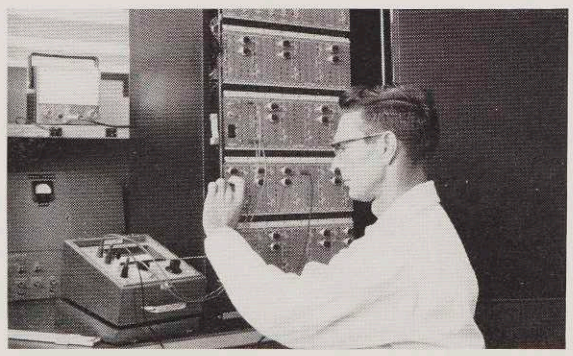
Leader in the Science of Cybernetics

New Electro-Mechanical Laboratories at Phillips Research Center, Bartlesville, Oklahoma, are "home" for over 100 scientists, engineers, and technicians working on automatic control system technology and instrumentation.

Mobile van-mounted computer-control test equipment has increased yield, throughput, efficiency, and return on investment when used for studies at several Phillips plants.



"Analog simulator" at Research Center electronically duplicates process conditions, enabling specialists to work out all variables upon which to design full-scale plant.



Phillips laboratory people prepare "automatic control-computer" for installation at huge natural gas liquids facilities in Texas. Automatically, it will control series of fractionating towers at optimum conditions beyond human capabilities. A similar computer is used at company's new Cis-4 polybutadiene synthetic rubber unit.

χυβερνήτης

From this ancient Greek word for "steersman" has come the name of an exciting new science which is revolutionizing industrial technology and changing man's way of life.

This science—cybernetics—encompasses the whole field of electro-mechanical communication, computation, and control systems.

Cybernetics relieves manpower shortages in some technical fields, opens new avenues in others. It enables heretofore unattainable degrees of control of product quality and operating functions. It permits industry to undertake projects previously impossible, thus helping create new employment.

Phillips pioneered in cybernetics before it really had a name. Phillips was one of the first in the oil industry to develop, make, and use equipment to control plant and field operations automatically. This pioneering enables Phillips to move swiftly in applying cybernetics to function after function, *for profitability and leadership among competition.*

PHILLIPS 66

PHILLIPS PETROLEUM COMPANY, Bartlesville, Oklahoma

Ad No. 2270*

This advertisement prepared by LAMBERT & FEASLEY, INC. for the following publications:

Page

Financial Analysts Journal	September-October, 1962
Magazine of Wall Street and Business Analyst	October 20, 1962
Dun's Review & Modern Industry	November, 1962
Barron's National Business & Financial Weekly (NASD Conv. Issue)	November 5, 1962
Forbes	November 15, 1962
Burroughs Clearing House	December, 1962
7" x 10" unit (420 lines)	
American Banker	October 8, 1962
3 columns x 145 lines (435 lines)	
Wall Street Journal (East, Midwest and Southwest Editions)	September 26, 1962

THE UNIVERSITY OF CHICAGO
CHICAGO 37 • ILLINOIS
THE DIVINITY SCHOOL
Swift Hall

Nov. 6, 1962

Phillips Petroleum Co.
Bartlesville, Okla.

Dear Sirs:

I hope that your operations in the field of cybernetics -- as outlined in your advertisement in Barron's Magazine for November 5 -- prove more profitable than your adventures in the Greek language.

Had cybernetics come from χυβερνήτης, as you spell it, it would be chybernetics. Actually the word for "steersman" is κυβερνήτης, with a kappa not with a chi.

It can be claimed, of course, that this is merely a trivial distinction related to a language largely dead. I think the claim is wrong. Accuracy is important in whatever you do.

Very truly yours,

Robert M. Grant

Robert M. Grant

Professor of the History of Early Christianity

November 15, 1962

Mr. Robert M. Grant, Professor
of the History of Early Christianity
The Divinity School
The University of Chicago
Chicago 37, Illinois

Dear Mr. Grant:

We certainly appreciate your interest in calling to our attention the Greek language representation for the word "steersman" in our "cybernetics" advertisement in Barron's Magazine for November 5.

We fully agree with you that accuracy is important in whatever you do. We always strive for absolute accuracy of detail in all of our writing efforts.

In the particular case you brought to our attention, our research indicated some differences among experts, including some people with our company knowledgeable in Greek language, as to whether the word should begin with a "kappa" or a "chi." We finally decided to take for our authority a passage in the authoritative book "Cybernetics" by Norbert Wiener, Professor of Mathematics at the Massachusetts Institute of Technology, Second Edition, 1961. Dr. Wiener seems to indicate that use of "chi" in the Greek for "steersman" goes back to a derivation from a Latin corruption of the Greek word. The particular passage, beginning on page 11 of the book, reads as follows:

> "Thus, as far back as four years ago, the group of scientists about Dr. Rosenblueth and myself had already become aware of the essential unity of the set of problems centering about communication, control, and statistical mechanics, whether in the machine or in living tissue. On the other hand, we were seriously hampered by the lack of unity of the literature concerning these problems, and by the absence of any common terminology, or even of a single name for the field. After much consideration, we have come to the conclusion that all the existing terminology has too heavy a bias to one side or another to serve

the future development of the field as well as it should; and as happens so often to scientists, we have been forced to coin at least one artificial neo-Greek expression to fill the gap. We have decided to call the entire field of control and communication theory, whether in the machine or in the animal, by the name Cybernetics, which we form from the Greek χυβερνήτης or steersman. In choosing this term, we wish to recognize that the first significant paper on feedback mechanisms is an article on governors, which was published by Clerk Maxwell in 1868, and that governor is derived from a Latin corruption of χυβερνήτης. We also wish to refer to the fact that the steering engines of a ship are indeed one of the earliest and best-developed forms of feedback mechanisms."

Inasmuch as the above passage also is indicated to be part of the original edition of the book published in 1948, we assume that if a change in the characters employed in this description had been indicated since the original edition was published, it would have been reflected in the 1961 edition.

We hope this explains to you why we used the particular terminology in our advertisement. Such distinctions always are interesting to people like you and me who deal with words, and I appreciate your comments.

Cordially yours,

R. E. Jeffrey

REJ:amt

November 15, 1962

Professor E. F. Beckenbach
Department of Mathematics
University of California
Los Angeles 24, Calif.

Dear Professor Beckenbach:

In view of Professor Wiener's year at the University of Naples, from which he will not return until the end of January, I have had to send your communication regarding the possible publication of his Extension course material to him. You should hear from him as soon as he can answer.

Sincerely yours,

Eva-Maria Ritter
Secretary

Dr. K. H. Blacker
Senior Resident
The Langley Porter Neuropsychiatric Institute
401 Parnassus Avenue
San Francisco 22, California
U. S. A.

Dear Dr. Blacker:

First let me apologize for this late answer to your kind letter of August 14. As I have been in Europe this year and travelling all summer, your letter among others did not reach me until the end of September. In the meantime it has developed that I shall not be participating in the Interdisciplinary Program for reasons I explained to Dr. Engel. I thank you for the honor of asking me to address your Institute's Noon Staff Conference, and I regret that I shall not have the opportunity to meet with them. I am sure you will understand.

With best wishes for the success of the Conference, I remain,

sincerely,

Norbert Wiener

[see 12/4/62]

Mr. Nigel Calder
Science Editor
New Scientist
Cromwell House, Fulwood Placr
High Holborn, W.C.L.

Dear Mr. Calder:

Thank you for your letter of October 12, asking me if I would be willing to write an article on "The Uses and Abuses of Cybernetics", and for the copies of The New Scientist which came during last week.

I agree with you completely in what you say in the first two paragraphs of your letter. However, to write such an article would require more time than I have at my disposal at present as well as more material and sources than I have at my disposal here. In a good many cases it would extremely difficult to separate the wheat from the chaff. I have already expressed myself on this subject in some articles and lectures. I am sure you will understand.

Sincerely yours,

Norbert Wiener

Mr. Martin Friedlander
Department of Chemistry
Havemeyer Hall 305
Columbia University
New York City, N. Y.
U. S. A.

Dear Mr. Friedlander:

Thank you very much for your kind letter of October 31, in which you invite me to speak at the dinner of the Gamma chapter. I am sorry to have to decline again. I shall just have returned from a very busy year abroad and shall have a great deal of accumulated work waiting for me to be able to do justice to your request.

Thanking you again for the honor of asking me, I remain,

very sincerely yours,

Norbert Wiener

November 15, 1962

Professor Shikao Ikehara
Department of Mathematics
Tokyo Institute of Technology
OH-OKAYAMA, MEGURO-KU
TOKYO, JAPAN

Dear Professor Ikehara:

In response to your letter of October 30, let me, first of all, apologize for delaying the sending-off of Prof. Wiener's reprints. I think the difficulty was that I did not know which ones to send. It would make it infinitely easier if I knew which areas you are interested in -- then I can check to see if I have copies.

Prof. and Mrs. Wiener are fine and have had an interesting summer with a lot of travel. They are staying at the University of Naples until about the middle of January and will then return to MIT. Their private address there is 281 Via Posillipo, Naples, Italy. Their official address would be c/o Prof. E.R. Caianiello, Institute of Theoretical Physics, University of Naples, Mostra d'Oltremare, Pad. 19, Naples, Italy.

Perhaps it would be better to send the book here, and I should hold it for him. I am certain he will be interested in seeing it.

With best regards and apologies,

Yours sincerely,

Eva-Maria Ritter (Mrs)

November 15, 1962

Mr. Harry Levine
Dinner Chairman
American Committee for the
Weizmann Institute of Science
515 Park Avenue
New York 22, N.Y.

Dear Mr. Levine:

In Professor Wiener's name, I should like to thank you for the invitation to the Annual Weizmann Dinner.

Unfortunately, it will be impossible for him to be present, as he is still in Italy from where he will not return until the end of January.

Sincerely yours,

Eva-Maria Ritter
Secretary

Mr. Galen Marburg
Colby College
Waterville, Maine
U. S. A.

Dear Mr. Marburg:

I have received your letter of October 29, and am interested to he to hear that you are thinking of cybernetics as it gives insight into various connected fields. At present there is no school that gives such a course to my knowledge. The study of cybernetics begins to take on more meaning when you reach the graduate and postgraduate stage. In the meantime, best wishes in your future work.

Sincerely,

Norbert Wiener

Mr. John A. O'Keefe
3712 Thornapple Street
Chevy Chase 15, Md.
U. S. A.

Dear Mr. O'Keefe:

Your comment on the problem of releasing an object in the weightless state is interesting and may be of importance in space travel. It is certainly a cybernetic problem but not one where an a priori answer would be of much value. It is best to have a fuller report on the experiments before searching for a theoretical axplanation.

Sincerely yours,

Norbert Wiener

Dear Mr. Shaumjan:

Your letter of June 27 did not reach me until late in September due to my travels this summer, and since then I have been trying to find someone to translate it for me since I do not know Russian. Your second inquiry was just forwarded to me from my school, the Massachusetts Institute of Technology.

I am very much interested to hear of your plans for the publication of an encyclopedia on Automatization of Production and Industrial Electronics. Thank you for thinking of me in this connection. Unfortunately, I am for the present and for some time to come so heavily committed already that I would not be able to do justice to the article you request. I am sure you will understand.

With best wishes for the success of your undertaking, I remain,

very sincerely yours,

Norbert Wiener

ГОСУДАРСТВЕННОЕ НАУЧНОЕ ИЗДАТЕЛЬСТВО
„СОВЕТСКАЯ ЭНЦИКЛОПЕДИЯ"
Заместитель председателя
Научного совета

„16" ноября 1962 г.

МАССАЧУСЕТСКИЙ ТЕХНОЛОГИЧЕСКИЙ ИНСТИТУТ
Отдел Математики
г=же Еве - Марие РИТТЕР
Кембридж Массачусетс

Уважаемая госпожа Риттер!

Подтверждаю получение Вашего письма от I ноября 1962г. Я также крайне сожалею, что проф.Винер не получил нашего заказа от 27 июня 1962г. на статью "Электронные автоматические машины".

Благодарю Вас за пересылку нашей просьбы проф. Винеру и прошу Вас не отказать в любезности сообщить ему, что мы твердо надеемся на получение от него названной статьи.

Что касается сроков ее представления в Издательство, то нам подошло бы начало 1963г. (январь-март).

С уважением

Л.Шаумян

Москва, Ж-28, Покровский бульвар, 8. Телефон К 7-35-62.

№ 416/и

ву.

NETHERLANDS CENTRAL INSTITUTE FOR BRAIN RESEARCH
59B MAURITSKADE, AMSTERDAM
THE NETHERLANDS

Amsterdam, November 16, 1962.

From: J.P.Schadé, M.D., Ph.D.,
Associate Director.

Prof. Dr Norbert Wiener
Universita di Napoli
Istituto di Fisica Teorica
Mostra d'Oltremare, Pad. 19
NAPOLI.

Dear Professor Wiener,

It was very nice to hear from you again and I thank you very much for sending me the transcript of the discussions and the corrections to your manuscript. The editorial work of the book is progressing very nicely and we have already sent out the first batches of proofs.

I have asked various people in Amsterdam about your detective story entitled "The Brain" which you mentioned in a footnote to your letter. However, none of the people knows anything about it. If you wish I would be perfectly willing to send a mimeographed letter to all participants, inquiring about your paper.

I am also very happy to tell you that all arrangements are made for your stay in Amsterdam, starting January 1964. The financial arrangements are very good (I will write your wife more details about it, and of course we will pay your and Mrs Wiener's travel from Massachusetts to Amsterdam).

Would you be so kind to send me 2 paragraphs (about 10 lines each) on the work you are planning to do here on prosthesis and mechanical statistics ?

With kindest regards as ever, and best wishes to your wife,

yours sincerely,

Schadé

Dr J.P.Schadé. [ans 11/24/62]

DEPARTMENT OF THE NAVY
OFFICE OF NAVAL RESEARCH
WASHINGTON 25, D. C.

IN REPLY REFER TO

ONR:437:RHW:jec
16 November 1962

COINS SYMPOSIUM

LEARNING, ADAPTATION, AND CONTROL IN INFORMATION SYSTEMS

June 17, 18, 1963

Northwestern University Technological Institute, Evanston, Illinois

A COmputer and INformation Sciences Symposium on Learning, Adaptation, and Control in Information Systems, co-sponsored by the Office of Naval Research Information Systems Branch and the Northwestern University Technological Institute, will be held on Monday and Tuesday, 17 and 18 June 1963. These dates were selected to permit attendance both at this Symposium and at the Joint Automatic Control Conference, also to be held in the Mid-West, the following three days. This COINS Symposium will be held at the Northwestern University in Evanston, Illinois.

The objective of this Symposium is to promote information exchange and stimulate interest in the application of self-organization and learning concepts to adaptive control processes and engineering systems. However, the approach emphasized will be that of the engineering and physical sciences, rather than of biology or psychology. Invited papers will be presented in the subjects of mathematical techniques, artificial intelligence in adaptive processes, pattern identification, applications of automata theory, and digital adaptive and learning systems. It is anticipated that formal proceedings will be published in the Fall of 1963.

Attendance at this unclassified Symposium is open to all interested technical personnel. Further information and a preliminary Symposium program, when available, may be obtained by contacting:

Professor Julius T. Tou, COINS Co-Chairman
Director, Computer Sciences Laboratory
Technological Institute
Northwestern University
Evanston, Illinois
Telephone UNiversity 4-1900 Ext 492

No answer needed -

Richard H. Wilcox
RICHARD H. WILCOX
Office of Naval Research
COINS Co-Chairman

8 Ben Gamlah St.
Katamon, Jerusalem,
Israel
November 18, 1962

Professor Norbert Wiener
Institute of Theoretical Physics
Mostra D'oltre Mare
Pad. 19
Naples, Italy

Dear Professor Wiener,

My interest in cybernetics continues, and in the past month I have developed a model for memory and recall, in which your oft-repeated suggestion of the importance of "to whom it may concern" ~~messengers~~ messages plays an important role. The model seems to me to be quite important, but, as you might remember, I once thought I had proved the four color theorem. So, before trying to publish, I am requesting comments from you and from Professors Rosenblith and Schmitt. If this model appears to be useful, would you suggest where I might have it published?

Thanks again for your interest.

Sincerely yours,

Chuck Robinson

Charles E. Robinson

[ans 12/13/62]

Yale University *New Haven, Connecticut*

Department of Political Science

November 20, 1962

Professor Norbert Wiener
Department of Mathematics
MIT
Cambridge 39 Massachusetts

Dear Norbert:

In my book Nerves of Government, due for publication in early 1963 by The Free Press of Glencoe, New York, N.Y., I want to use a quotation from your The Human Use of Human Beings, as per attached mimeograph sheet of my manuscript.

Will you give me permission to do so? The footnote of this reference reads:

"1. Norbert Wiener, The Human Use of Human Beings, Boston, Houghton Mifflin, 1950, pp. 12-15 (italics in original)."

As the book is now in page-proof, I should be grateful to hear from you as soon as convenient to you.

Yours sincerely,

Karl W. Deutsch per EM Baskin pcy. signed in absence

Karl W. Deutsch
Professor of Political Science

KWD:eb
enclosure: 1
cc: The Free Press of Glencoe
New York, N.Y.

[ans 12/4/62]

We have already met the concept for the common process underlying all operations of this kind, which is known as feedback. It may be useful here to refer to a ~~popular~~ description of its essentials by Norbert Wiener:

> This control of a machine on the basis of its actual performance rather than its expected performance is known as feedback, and involves sensory members which are actuated by motor members and perform the function of tell-tales or monitors - that is, of elements which indicate a performance ....
>
> Something very similar to this occurs in human action. If I pick up my cigar, I do not will to move any specific muscles. Indeed in many cases, I do not know what those muscles are. What I do is to turn into action a certain feedback mechanism; namely, a reflex in which the amount by which I have yet failed to pick up the cigar is turned

into a new and increased order to the lagging muscles, whichever they may be. In this same way, a fairly uniform voluntary command will enable the same task to be performed from widely varying initial positions, and irrespective of the decrease of contraction due to fatigue of the muscles....

It is my thesis that the operation of the living individual and the operation of some of the newer communication machines are precisely parallel. Both of them have sensory receptors as one stage in their cycle of operation: that is, in both of them there exists a special apparatus for collecting information from the outer world at low energy levels, and for making it available in the operation of the individual or of the machine. In both cases these external messages are not taken neat, but through the internal transforming powers of the apparatus, whether it be alive or dead. The information is then turned into a new form available for the further stages of performance. In both the animal and the machine this performance is made to be effective on the outer world. In both of them, their performed action on the outer world, not merely their intended action, is reported back to the central regulatory apparatus. This complex of behavior is ignored by the average man, and in particular does not play the role that it should in our habitual analysis of society.[1]

No. 14

November 20, 1962

Dear Prof. & Mrs. Wiener,

Just a note to go with the mail.

The enclosed is self-explanatory.

Besides that, a book has arrived for review called Intelligent Machines, by D.A. Bell. It's an introduction to Cybernetics, and I think you probably have neither time nor interest to do it, either way — or if you can think of someone who might want to do it — would you let me know?

Meanwhile you may have gotten the Tempest, which I thought you might mail to Prof. Ambartsumian. If you have sent it — would you tell me how much the postage was? Then I shall send Prof. Parseghian at Rensselaer the bill for this difficult transaction.

Now you are on the "last leg" of your present travels. Hope the remainder of your stay is very pleasant.

With best regards,

Eve-Maria Ritter

November 20, 1962

No 14. Dear Prof. & Mrs. Wiener,

Just a note to go with the mail.

The enclosed is self-explanatory.

Besides that, a book has arrived for review called Intelligent Machines, by D.A. Bell. It's an introduction to Cybernetics, and I think you probably have neither time nor interest to do it, either way — or if you can think of someone who might want to do it — would you let me know?

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Now you are on the "last leg" of your present travels. Hope the remainder of your stay is very pleasant.

With best regards,

Eve-Laura Ritter

No. 15 Nov. 26, 1962

Dear Professor Weiss,

Together with today's mailing, please accept my very best wishes for the new year which lies ahead of you as of today. I hope it will bring you continued good health, interesting work and "viel Freude"!

Best regards to Mrs. Weiss,

E. H. Ritter

No. 16 (I think) (Did not make a note of 15)

Dear Mrs. Wiener,

Thank you for your letter of Nov. 27. I am glad that you received mail no. 14 – 15 will have reached you, too – and I hope to have the books. I will definitely not send any now. Have made a note regarding mail

up to the 3rd of Jan.,
too.

Hope all is well with
you. – I am in a
hurry – hope you
don't mind.

Best regards.

Ed Ritter